



रेल भर्ती बोर्ड / RAILWAY RECRUITMENT BOARDS
सी ई एन आर पी एफ - ०२/२०२४ - CEN RPF - 02/2024



RRB RPF Constable 2024

RPF Constable (Executive) · CEN RPF 02/2024 · CBT · Arithmetic — Topic-wise

English

23 Chapters · 1209 Questions · Official Answer Key

About this Compilation

Every **Arithmetic** question asked across all shifts of the **RRB RPF Constable 2024** examination (CEN RPF 02/2024), regrouped by **chapter** instead of by shift, so you can revise one topic end to end. The correct option is marked as per the official answer key.

51 duplicate questions removed. RRB repeated these word-for-word across different shifts. They appear once here, so a chapter never prints the same question twice - the complete and section-wise books still carry every occurrence.

How to use

- Use the **Index** to jump to any chapter (clickable).
- Within a chapter, questions on the same idea are placed together.
- The correct answer is highlighted in green with a tick.
- The same paper is also available complete and section-wise.



Blackbook:
English Vocabulary



Toppers' Choice, Blackbook of English Vocabulary, Now available in App format : DOWNLOAD NOW

Index — All Chapters (click to open)

1 Basic Algebra Algebra · 2 Qs	13 Simple Interest Arithmetic · 36 Qs
2 Algebraic Identities Algebra · 4 Qs	14 Time, Speed and Distance Arithmetic · 142 Qs
3 Simplification Algebra · 124 Qs	15 Time and Work Arithmetic · 69 Qs
4 Surds and Indices Algebra · 19 Qs	16 Arithmetic (General) Arithmetic · 1 Qs
5 Age Problems Arithmetic · 9 Qs	17 Quadrilaterals Geometry · 2 Qs
6 Average Arithmetic · 144 Qs	18 Triangles Geometry · 8 Qs
7 Compound Interest Arithmetic · 69 Qs	19 3D Mensuration Mensuration · 69 Qs
8 Mixture and Alligation Arithmetic · 37 Qs	20 2D Mensuration Mensuration · 24 Qs
9 Percentage Arithmetic · 92 Qs	21 Digit Problems Number System · 2 Qs
10 Pipe and Cistern Arithmetic · 37 Qs	22 Divisibility Number System · 54 Qs
11 Profit and Loss Arithmetic · 139 Qs	23 Types of Numbers Number System · 47 Qs
12 Ratio and Proportion Arithmetic · 79 Qs	

Q1 HCF algebraic expressions

The HCF of $x^{1.5} \times y^{2.5}$ and $y^{3.5} \times x^{2.5}$ is _____.

A. $x \times y^2 \times \sqrt{x \times y}$ ✓

B. $x^2 \times y \times \sqrt{x \times y}$

C. $x^2 \times y^2 \times \sqrt{x \times y}$

D. $x \times y \times \sqrt{x \times y}$

Q2 Solve for variable

Find out the value of 'y' in the following equation.

$$72 \div 4 + y \times 6 - 22 = 14$$

A. 3 ✓

B. 2

C. 4

D. 5



Algebra

4 Questions • Answer Key

Q1 perfect square identity

For what value of A, will the expression $(13.56 \times 13.56 + 13.56 \times A + 0.04 \times 0.04)$ be a perfect square?

A. 0.12

B. 0.04

C. 0.16

D. 0.08



Q2 Cube difference identity

Simplify the following expression:

$$\frac{6.5^3 - 5^3}{42.25 + 32.5 + 25}$$

A. 1.5

B. 0.5

C. 3.5

D. 2.5



Q3 Cube identity decimals

If $p = (0.001) + 3(0.1)(0.99) + (0.3)(98.01) + (9.9)(98.01)$, then find the value of $\frac{p}{25}$.

A. 50

B. 400

C. 40

D. 540



Q4 Perfect square surd

Find the value of $\sqrt{a^2 - 2\sqrt{3}a + 3}$ where $a = \sqrt{3}$

A. $(a - \sqrt{3})^2$ B. $a - \sqrt{3}$ C. $a + \sqrt{3}$

D. 0



Algebra

124 Questions • Answer Key

Q1 BODMAS brackets

Evaluate: $41 - [36 - \{48 \div 2 - (4 - 8 \div 2) \div 3\}]$

A. 29



B. 30

C. 28

D. 31

Q2 BODMAS brackets

Evaluate: $41 - [36 - \{48 \div 2 - (6 - 12 \div 2) \div 2\}]$

A. 31

B. 29



C. 28

D. 30

Q3 BODMAS brackets

Evaluate: $41 - [21 - \{11 - (15 - 9 \div 3 \times 2)\}]$

A. 24

B. 19

C. 22



D. 17

Q4 BODMAS brackets

Evaluate: $41 - [36 - \{48 \div 3 - (4 - 8 \div 2) \div 2\}]$

A. 23

B. 21



C. 22

D. 20

Q5 BODMAS brackets

Evaluate: $2 \times \{17 - 2 \times (11 - 5)\}$

A. 10



B. 9

C. 14

D. 7

Q6 BODMAS brackets

Evaluate: $2 \times \{17 - 2 \times (9 - 4)\}$

A. 11

B. 18

C. 14



D. 13

Q7 BODMAS brackets

Evaluate: $2 \times \{17 - 2 \times (9 - 6)\}$

A. 26

B. 21

C. 19

D. 22



Q8 BODMAS brackets

Evaluate: $2 \times \{17 - 2 \times (10 - 6)\}$

A. 17

B. 22

C. 18



D. 15

Q9 BODMAS brackets

Evaluate: $2 \times \{17 - 2 \times (10 - 5)\}$

A. 14



B. 13

C. 18

D. 11

Q10 BODMAS brackets

Evaluate: $2 \times \{17 - 2 \times (10 - 4)\}$

A. 7

B. 9

C. 14

D. 10



Q11 BODMAS bracketsEvaluate: $41 - [21 - \{11 - (15 - 6 \div 3 \times 3)\}]$

A. 19

B. 22 ✓

C. 17

D. 24

Q12 BODMAS bracketsEvaluate: $41 - [21 - \{11 - (15 - 6 \div 2 \times 3)\}]$

A. 25 ✓

B. 20

C. 22

D. 27

Q13 BODMAS bracketsEvaluate: $2 \times \{17 - 2 \times (8 - 5)\}$

A. 21

B. 22 ✓

C. 26

D. 19

Q14 BODMAS bracketsEvaluate: $2 \times \{17 - 2 \times (9 - 5)\}$

A. 18 ✓

B. 17

C. 22

D. 15

Q15 BODMAS bracketsEvaluate: $2 \times \{17 - 2 \times (11 - 4)\}$

A. 6 ✓

B. 3

C. 5

D. 10

Q16 BODMAS bracketsEvaluate: $2 \times \{17 - 2 \times (8 - 6)\}$

A. 25

B. 23

C. 26 ✓

D. 30

Q17 BODMAS bracketsEvaluate: $2 \times \{17 - 3 \times (9 - 5)\}$

A. 10 ✓

B. 7

C. 14

D. 9

Q18 BODMAS bracketsEvaluate: $41 - [21 - \{11 - (16 - 4 \div 3 \times 3)\}]$

A. 14

B. 19 ✓

C. 21

D. 16

Q19 BODMAS bracketsEvaluate: $1850 - [450 - \{210 - (100 - 60 - 7)\}]$

A. 1577 ✓

B. 1507

C. 1652

D. 1437

Q20 BODMAS simplificationEvaluate: $41 - [21 - \{11 - (15 - 6 \div 2 \times 2)\}]$

A. 17

B. 19

C. 24

D. 22 ✓

Q21 BODMAS simplificationEvaluate: $41 - [36 - \{48 \div 2 - (4 - 12 \div 3) \div 3\}]$

A. 30

B. 29 ✓

C. 28

D. 31

Q22 BODMAS simplificationEvaluate: $41 - [21 - \{11 - (15 - 5 \div 2 \times 2)\}]$

A. 16

B. 21 ✓

C. 18

D. 23



Q23 BODMAS simplificationEvaluate: $41 - [36 - \{48 \div 2 - (5 - 9 \div 3) \div 2\}]$

A. 28



B. 29

C. 27

D. 30

Q24 BODMAS simplificationEvaluate: $41 - [36 - \{48 \div 2 - (4 - 12 \div 2) \div 2\}]$

A. 30



B. 31

C. 29

D. 32

Q25 BODMAS simplificationEvaluate: $41 - [21 - \{11 - (16 - 4 \div 2 \times 3)\}]$

A. 18

B. 23

C. 21



D. 16

Q26 BODMAS simplificationEvaluate: $41 - [36 - \{48 \div 2 - (6 - 6 \div 3) \div 2\}]$

A. 27



B. 28

C. 29

D. 26

Q27 BODMAS simplificationEvaluate: $2 \times \{17 - 3 \times (8 - 6)\}$

A. 19

B. 21

C. 26

D. 22

**Q28 BODMAS simplification**Evaluate: $41 - [36 - \{48 \div 2 - (6 - 8 \div 2) \div 2\}]$

A. 27

B. 29

C. 28



D. 30

Q29 BODMAS simplificationEvaluate: $41 - [21 - \{11 - (15 - 8 \div 2 \times 3)\}]$

A. 28



B. 30

C. 23

D. 25

Q30 BODMAS simplificationEvaluate: $41 - [36 - \{48 \div 2 - (6 - 12 \div 3) \div 2\}]$

A. 29

B. 30

C. 28



D. 27

Q31 BODMAS simplificationEvaluate: $41 - [36 - \{48 \div 2 - (5 - 10 \div 2) \div 3\}]$

A. 31

B. 29



C. 30

D. 28

Q32 BODMAS simplificationEvaluate: $41 - [36 - \{48 \div 2 - (6 - 6 \div 2) \div 3\}]$

A. 27

B. 30

C. 28



D. 29

Q33 BODMAS simplificationEvaluate: $41 - [21 - \{11 - (15 - 8 \div 3 \times 3)\}]$

A. 21

B. 19

C. 24



D. 26

Q34 BODMAS simplificationEvaluate: $41 - [21 - \{11 - (15 - 7 \div 3 \times 3)\}]$

A. 18

B. 23



C. 20

D. 25



Q35 BODMAS simplificationEvaluate: $41 - [36 - \{48 \div 2 - (6 - 12 \div 2) \div 3\}]$

A. 30

B. 28

C. 31

D. 29 ☒**Q36 BODMAS simplification**Evaluate: $41 - [36 - \{48 \div 2 - (6 - 9 \div 3) \div 3\}]$

A. 27

B. 28 ☒

C. 30

D. 29

Q37 BODMAS simplificationEvaluate: $2 \times \{17 - 3 \times (9 - 4)\}$

A. 8

B. 1

C. 4 ☒

D. 3

Q38 BODMAS simplificationEvaluate: $41 - [36 - \{48 \div 2 - (5 - 6 \div 2) \div 2\}]$ A. 28 ☒

B. 29

C. 30

D. 27

Q39 Compare quotients

Arrange the given quotients in ascending order.

1) $876.48 \div 83$ 2) $171.74 \div 62$ 3) $369.24 \div 17$

A. 1,2,3

B. 2,1,3 ☒

C. 3,1,2

D. 3,2,1

Q40 Decimal additionFind the value of $2.35 + 0.56 - 1.89 - 2.85 + 4.26$.

A. 2.04

B. 2.43 ☒

C. 2.33

D. 2.24

Q41 Decimal additionFind the value of $7.56 + 3.48 - 8.52 + 2.78 - 3.14$.A. 2.16 ☒

B. 3.25

C. 2.01

D. 3.85

Q42 Decimal multiples

How many times 0.25 is 2.5?

A. 12 times

B. 10 times ☒

C. 1 time

D. 5 times

Q43 Decimal simplificationFind the value of $0.38 \times 0.5 - 2.35 + 1.96 - 0.25 + 0.85$.

A. 0.04

B. 0.4 ☒

C. 1.4

D. 1.04

Q44 Decimal simplificationFind the value of $5.84 \times 2.05 - 3.64 \times 1.45 - 2.05 \times 3.54 + 8.76 \times 2.05 - 12.375 + 6.98$.

A. 19

B. 12 ☒

C. 21

D. 15



Q45 Decimal simplification

Find the value of $2.035 - 20.35 + 28.56 \times 0.8 + 13.02 - 3.65 - 8.05$.

A. 4.905

B. 5.853

C. 4.582

D. 5.263

Q46 Decimal simplification

Find the value of $2.54 \times 0.4 - 0.58 \times 5.64 + 2.85 \times 3.14 - 0.84 + 4.8 \times 3.8 - 7.0938$.

A. 19

B. 17

C. 23.67

D. 21.58

Q47 Find unknown from average

Evaluate the value of x if $(5420 + 3312 + x) \div 600 = 25.93$.

A. 1558

B. 6359

C. 6287

D. 6826

Q48 Powers simplification

Simplify $10^3 - 3^3 - 2^3/10^2 + 10^2 \times 35 \div 7$.

A. 1472.29

B. 1427.92

C. 1472.92

D. 1427.29

Q53 BODMAS powers simplification

The value of

$$8^3 - 1^2 + \left(\frac{42}{2}\right)^2 - 7 + 4 \times 9 = \underline{\hspace{2cm}}$$

A. 982

B. 984

C. 983

D. 981

Q49 decimal equation

If $0.008/x = 0.01$, find x.

A. 0.8

B. 80

C. 0.08

D. 8

Q50 decimal simplification

Find the value of $4.05 - 1.25 - 3.68 + 8.76 + 0.5 - 4.26$.

A. 4.54

B. 4.36

C. 4.12

D. 4.02

Q51 decimal simplification

Find the value of $8.15 \times 0.35 - 2.36 \times 0.8 + 1.07 - 0.5 \times 0.8 - 2.56$.

A. -0.4356

B. -0.9255

C. -0.2235

D. -0.6354

Q52 recurring decimal fraction

Convert 0.363636 into a fraction.

A. 36/99

B. 36/100

C. 3636/1000

D. 63/99



Q54 BODMAS simplification

The value of

$$0^3 - 3^2 + \left(\frac{30}{10}\right)^2 - 7 + 0 \times 1 = \underline{\hspace{2cm}}$$

A. -4

B. -10

C. -7



D. 1

Q55 BODMAS simplification

Find the value of $\left(\frac{1}{6}\right)^{-3} + \left(\frac{1}{2}\right)^{-3} + \left(\frac{1}{3}\right)^{-3}$.

A. 252

B. 251



C. 244

D. 254

Q56 BODMAS simplification

The value of

$$\sqrt{256} + \sqrt{0.0121} - \sqrt{4.41} =$$

A. 14.01



B. 2.57

C. 6.12

D. 4.21

Q57 BODMAS simplification

Simplify the following expression.

$$\sqrt{12.5 \times 8 \times 2.89}$$

A. 13

B. 19



C. 15

D. 17



Blackbook Vocabulary — Now in the App!

Download Now on Google Play

Q58 BODMAS simplification

Simplify the following:

$$12 \div (12 \times 12) + (15 \div 15) \div 15 \times 15 + 15$$

A. $\frac{112}{93}$

B. $\frac{12}{193}$

C. $\frac{93}{112}$

D. $\frac{193}{12}$ ✓

Q59 BODMAS simplification

Simplify the following.

$$168 \div 24 \times \frac{1}{2} + \frac{3}{5} \times 4\frac{1}{3}$$

A. 6.1 ✓

B. 9.4

C. 8.3

D. 7.2

Q60 BODMAS simplification

$$\text{Simplify: } \left[\frac{1}{5} \text{ of } (5 \times 7 - 5) + 20 \div 5 \right] \div \left[\frac{0.27}{0.03} - \{21 \div 3 + (2 - 3)\} + 5 \right]$$

A. 2.5

B. 2

C. 1.25 ✓

D. 1

Q61 Compare numbers

Select the least number from among the following.

a) 0.8

b) $0.\overline{8}$

c) $1 \div 0.8$

d) $\frac{2}{5} \times 0.8$

A. a)

B. b)

C. c)

D. d) ✓



Q62 Decimal proportion

If $\frac{188}{0.0188} = \frac{18.8}{x}$, then find x.

A. $\frac{1.88}{100000}$

B. $\frac{18.8}{100000}$

C. fraction numerator 0.188 over denominator 1000 end fraction



D. $\frac{0.188}{1000}$

Q63 Decimal simplification

Simplify the expression: $(0.2)^3 + (0.5)^3 + (0.7)^3 - (4 \times 0.2 \times 0.5 \times 0.7)$

A. 0.0196

B. 19.60

C. 0.196



D. 1.96

Q64 Decimal simplification

Simplify the following.

$$\frac{0.0406 \times 5.84}{0.0146 \times 14.5 \times 1.4}$$

A. 0.4

B. 1.2

C. 0.6



D. 0.8

Q65 Decimal simplification

The value of

$$\sqrt{324} + \sqrt{0.0169} - \sqrt{6.76} =$$

A. 16.2

B. 15.53



C. 4.51

D. 10.87



Q66 Decimal simplification

Find the simplified value of the expression $\frac{0.4 \times 0.4 + 0.04 \times 0.04 - 0.8 \times 0.04}{0.72}$.

A. 0.018

B. 0.118

C. 0.18



D. 0.72

Q67 Decimal simplification

The value of $\frac{(1.8)^3 - (1.2)^3}{(1.8)^2 + 2.16 + (1.2)^2}$ is:

A. 0.6

B. 0



C. 1.8

D. 3

Q68 Decimal simplification

The value of

$$\sqrt{361} + \sqrt{0.04} - \sqrt{6.76} =$$

A. 12.33

B. 10.51

C. 3.62

D. 16.6

**Q69** Decimal simplification

The value of

$$\sqrt{144} + \sqrt{0.0225} - \sqrt{9} =$$

A. 3.88

B. 13.97

C. 9.15



D. 3.44

Q70 Decimal simplification

Find the value of $6435.5 + 7646.4 + \frac{12039}{10}$.

A. 15185.8

B. 15285.8

C. 15385.8



D. 15485.8



Blackbook Vocabulary — Now in the App!

Download Now on Google Play

Q71 Decimal simplification

Simplify the expression: $(0.3)^3 + (0.6)^3 + (0.7)^3 - (3 \times 0.2 \times 0.4 \times 0.6)$

- A. 0
- B. 0.442
- C. 0.490
- D. 0.333

**Q72** Decimal simplification

Find the sum $\frac{4}{10} + \frac{6}{100} + \frac{7}{1000} + \frac{9}{10000}$ in decimal form.

- A. 0.4579
- B. 0.4679
- C. 0.4379
- D. 0.4479

**Q73** Decimal simplification

The value of

$$\sqrt{121} + \sqrt{0.0324} - \sqrt{9} =$$

- A. 2.99
- B. 6.53
- C. 8.18
- D. 11.08

**Q74** Decimal simplification

The value of

$$\sqrt{169} + \sqrt{0.0289} - \sqrt{4.41} =$$

- A. 1.96
- B. 11.07
- C. 6.36
- D. 3.43

**Q75** Decimal simplification

Evaluate the following:

$$\frac{(3.49)^2 - (1.71)^2}{3.49 - 1.71}$$

- A. 5.2
- B. 4.4
- C. 1.78
- D. 2.48



Q76 Decimal simplification

The value of

$$\sqrt{144} + \sqrt{0.0196} - \sqrt{6.76} =$$

A. 9.54

B. 2.53

C. 1.87

D. 12.99

**Q77** Fraction percent expression

A fraction r is equivalent to 18.75%. What is the value of the expression $\frac{8^2}{9}(2r)^2$?

A. 0.75

B. 0.5

C. 0.25

D. 1

**Q78** Fraction simplification

Find the value of $\left(\frac{1}{4}\right)^{-4} + \left(\frac{1}{2}\right)^{-4} + \left(\frac{1}{6}\right)^{-4}$.

A. 1568

B. 1577

C. 1562

D. 1563

**Q79** Fraction simplification

Find the value of $\left(\frac{1}{4}\right)^{-2} + \left(\frac{1}{9}\right)^{-2} + \left(\frac{1}{7}\right)^{-2}$.

A. 146

B. 141

C. 142

D. 147



Q80 Fraction simplification

Simplify the following.

$$\frac{(5.6 \times 0.36) + (0.42 \times 3.2)}{0.8 \times 2.1}$$

A. 20

B. 0.2

C. 3

D. 2

**Q81** Fraction simplification

Find the value of $\left(\frac{1}{2}\right)^{-4} + \left(\frac{1}{4}\right)^{-4} + \left(\frac{1}{7}\right)^{-4}$.

A. 2683

B. 2673

C. 2678

D. 2670

**Q82** Fraction simplification

Find the value of $\left(\frac{1}{5}\right)^{-2} + \left(\frac{1}{9}\right)^{-2} + \left(\frac{1}{2}\right)^{-2}$.

A. 118

B. 116

C. 107

D. 110

**Q83** Fraction simplification

The value of $\frac{3.6 \times 0.48 \times 2.50}{0.12 \times 0.09 \times 0.5}$ is ____.

A. 800

B. 400

C. 200

D. 600

**Q84** Fraction simplification

The value of

$$\sqrt{324} + \sqrt{0.0324} - \sqrt{5.29} =$$

A. 6.12

B. 8.34

C. 15.88

D. 1.5



Blackbook Vocabulary — Now in the App!

Download Now on Google Play

Q85 Fraction simplification

Find the value of $\left(\frac{1}{6}\right)^{-2} + \left(\frac{1}{5}\right)^{-2} + \left(\frac{1}{4}\right)^{-2}$.

A. 77



B. 85

C. 67

D. 83

Q86 Fraction simplification

If $n = 75$, then find the value of $\left(1 - \frac{1}{n}\right) + \left(1 - \frac{2}{n}\right) + \left(1 - \frac{3}{n}\right) + \dots + (50 \text{ terms})$.

A. 13



B. 23

C. 43

D. 33

Q87 Fraction simplification

Find the value of $\left(\frac{1}{5}\right)^{-2} + \left(\frac{1}{3}\right)^{-2} + \left(\frac{1}{6}\right)^{-2}$.

A. 68

B. 74

C. 62

D. 70

**Q88** Fraction simplification

The value of

$$9^3 - 9^2 + \left(\frac{40}{2}\right)^2 - 5 + 8 \times 5 = \underline{\hspace{2cm}}$$

A. 1086

B. 1091

C. 1088

D. 1083



Q89 Fraction simplification

Simplify the following.

$$\frac{4}{5} + \left(1056 \times \frac{6}{96 \times 5} \right)$$

A. 15

B. 16

C. 14



D. 13

Q90 Fraction simplification

Find the value of $3\frac{1}{2} + 4\frac{3}{4} - 5\frac{3}{8} + 2\frac{1}{4} - 3\frac{1}{8}$.

A. 5

B. 4



C. 3

D. 2

Q91 Linear equation

Find the value of x in the following equation.

$$\frac{8}{(x-3)} = \frac{6}{(x+5)}$$

A. -27



B. -29

C. -31

D. -25

Q92 Linear equation decimals

What is the value of x in the following equation?

$$682.84 - 107.48 = \frac{x}{50} - 125.72$$

A. 70801



B. 35054

C. 7080.1

D. 3505.4



Q93 Nested square roots

Evaluate:

$$\sqrt{\left(17 + \sqrt{\left(56 + \sqrt{\left(60 + \sqrt{\left(9 + \sqrt{(49)}\right)}\right)}\right)}\right)}$$

A. 4

B. 5

C. 2

D. 8

**Q94** Roots and cube rootFind the value of $\frac{62}{4} - 7 \times 2.5 + \sqrt[3]{2197}$.

A. 14

B. 12.5

C. 11

D. 9.5

**Q95** Roots simplification

The value of

$$\sqrt{144} + \sqrt{0.0361} - \sqrt{5.29} =$$

A. 6.82

B. 9.89

C. 15.51

D. 6.96

**Q96** Roots simplificationFind the value of $\left(\frac{1}{4}\right)^{-2} + \left(\frac{1}{6}\right)^{-2} + \left(\frac{1}{2}\right)^{-2}$.

A. 54

B. 60

C. 61

D. 56



Q97 Roots simplification

The value of

$$\sqrt{144} + \sqrt{0.0324} - \sqrt{9} =$$

A. 9.18

B. 15.32

C. 4.77

D. 5.23

**Q98** Roots simplification

Evaluate:

$$\sqrt{\left(20 + \sqrt{\left(17 + \sqrt{\left(55 + \sqrt{\left(73 + \sqrt{(64)}\right)}\right)}\right)}\right)}$$

A. 8

B. 4

C. 3

D. 5

**Q99** Simplification expressionThe simplified value of the expression $\frac{0.75^2 - 0.25^2}{2} \times \frac{2.5^2 - 1.5^2}{4} \times \frac{1}{0.25}$ is ____.

A. 1

B. -0.5

C. 0.5

D. -1

**Q100** Simplification expression

Simplify the given expression.

$$: 45 \times \frac{3}{5} \div \frac{0.3}{2.5}$$

A. 22.5

B. 2250

C. 225

D. 2.25



Q101 Simplification expression

Find the value of given expression.

$$\frac{0.5}{0.5} + \frac{0.5}{(0.5)^2} + \frac{0.375}{(0.5)^3} + \frac{0.25}{(0.5)^4}$$

A. 10



B. 4

C. 0.1

D. 1

Q102 Surd simplification

The value of

$$5^3 - 0^2 + \left(\frac{8}{4}\right)^2 - 6 + 6 \times 5 = \underline{\hspace{2cm}}$$

A. 152

B. 154

C. 153



D. 151

Q103 decimal simplification

Evaluate

$$\frac{0.0259 \times 2.61}{0.7 \times 18.5 \times 0.0087}$$

A. 0.54

B. 0.6



C. 0.75

D. 0.91

Q104 decimal to fraction

What is the simplest fractional form of 0.625?

A. $\frac{5}{8}$ B. $\frac{25}{50}$ C. $\frac{625}{1000}$ D. $\frac{10}{20}$ 

Q105 fraction simplification

Simplify $(\frac{2}{3} \times \frac{6}{5}) + (\frac{12}{25} \times \frac{20}{3})$.

A. $\frac{3}{5}$

B. 3

C. 4



D. $\frac{12}{5}$

Q106 series sum

The value of $\frac{1}{0.8} + \frac{1}{0.08} + \frac{1}{0.008} + \dots$ up to the seventh term is ____.

A. 138888.25

B. 138888.75

C. 1388888.75

D. 13888888.75

**Q107** simplification value

Find the value of $(\frac{1}{7})^{-4} + (\frac{1}{9})^{-4} + (\frac{1}{5})^{-4}$.

A. 9578

B. 9596

C. 9587



D. 9584

Q108 simplification value

The value of

$6^3 - 5^2 + (\frac{24}{3})^2 - 2 + 6 \times 1 =$ _____

A. 259



B. 261

C. 264

D. 265



Q109 simplification value

The value of

$$9^3 - 2^2 + \left(\frac{38}{19}\right)^2 - 8 + 2 \times 9 = \underline{\hspace{2cm}}$$

A. 744

B. 739



C. 742

D. 743

Q110 simplification value

The value of

$$9^3 - 2^2 + \left(\frac{42}{3}\right)^2 - 6 + 5 \times 0 = \underline{\hspace{2cm}}$$

A. 915



B. 913

C. 918

D. 922

Q111 simplification value

Simplify: $\frac{1\frac{1}{4} + 18.75 - 12\frac{2}{6} - 7\frac{6}{9}}{0.6 \times 8.7 - 6.98 \times 10.9}$

A. 1

B. 0.75

C. 0



D. 1.6

Q112 simplification value

Evaluate:

$$\sqrt{\left(3 + \sqrt{\left(32 + \sqrt{\left(8 + \sqrt{\left(57 + \sqrt{(49)}\right)}\right)}\right)}\right)}$$

A. 6

B. 5

C. 3



D. 4



Blackbook Vocabulary — Now in the App!

▶ Download Now on Google Play

Q113 simplification value

Evaluate:

$$\sqrt{\left(42 + \sqrt{\left(40 + \sqrt{\left(74 + \sqrt{\left(42 + \sqrt{(49)}\right)}\right)}\right)}\right)}$$

A. 9

B. 5

C. 6

D. 7



Q114 simplification value

The value of

$$7^3 - 9^2 + \left(\frac{38}{2}\right)^2 - 0 + 7 \times 4 = \underline{\hspace{2cm}}$$

A. 658

B. 651

C. 648

D. 655



Q115 simplification value

Evaluate:

$$\sqrt{\left(92 + \sqrt{\left(60 + \sqrt{\left(11 + \sqrt{\left(16 + \sqrt{(81)}\right)}\right)}\right)}\right)}$$

A. 6

B. 9

C. 10

D. 13



Q116 simplification value

Evaluate:

$$\sqrt{\left(2 + \sqrt{\left(39 + \sqrt{\left(97 + \sqrt{\left(5 + \sqrt{(16)}\right)}\right)}\right)}\right)}$$

A. 3



B. 2

C. 7

D. 4

Q117 simplification value

If $A = \frac{0.125 + 0.729}{0.25 - 0.45 + 0.81} - 0.25 + \frac{12}{20} - \frac{6}{8}$, then the value of A is:

A. 1.4

B. 0

C. 2

D. 1



Q118 simplification value

Solve: $\left(\frac{1}{10} \div \frac{16}{100}\right)$ of $\frac{3.2}{0.4} + 120 \div 4$ of 3×10

A. 110

B. 100

C. 105



D. 90

Q119 simplification value

Find the value of $\left(\frac{1}{4}\right)^{-2} + \left(\frac{1}{8}\right)^{-2} + \left(\frac{1}{5}\right)^{-2}$.

A. 111

B. 101

C. 113

D. 105



Q120 simplification value

The value of $\frac{(2023)^{2024} + (2023)^{2023} + 2024}{(2023)^{2023} + 1}$ is:

- A. 2023
- B. 2025
- C. 2024
- D. 4047



Q121 simplification value

Evaluate:

$$\sqrt{76 + \sqrt{21 + \sqrt{9 + \sqrt{40 + \sqrt{81}}}}}$$

- A. 8
- B. 9
- C. 11
- D. 12



Q122 simplification value

Simplify: $\frac{6}{10} - \left(0.6 \div \frac{10}{3} \text{ of } 0.6 + 7 - 10 \div 5\right) - 0.3$

- A. -5
- B. 0.6
- C. 1
- D. 0



Q123 simplification value

The value of

$$\sqrt{289} + \sqrt{0.0121} - \sqrt{6.25} =$$

- A. 12.98
- B. 10.13
- C. 10.1
- D. 14.61



Q124 simplification value

The value of the expression $\frac{1}{0.25} + \frac{2}{0.125} + \frac{4}{0.0625} - \frac{1}{0.5} - \frac{1}{0.05}$ is ____.

A. 62



B. 64

C. 60

D. 68



Algebra

19 Questions • Answer Key

Q1 Fractional indices

Find the value of $18^{-13} \div 18^{18} \times 18^{-3}$

- A. 1. 18^{-41}
- B. 2. 18^{-34} ✓
- C. 3. 18^{-40}
- D. 4. 18^{-29}

Q2 Indices laws

Find the value of $47^{-5} \div 47^{11} \times 47^{-15}$

- A. 1. 47^{-41}
- B. 2. 47^{-27}
- C. 3. 47^{-31} ✓
- D. 4. 47^{-38}

Q3 Indices laws

Find the value of $40^{-7} \div 40^{19} \times 40^4$

- A. 1. 40^{-29}
- B. 2. 40^{-33}
- C. 3. 40^{-28}
- D. 4. 40^{-30} ✓

Q4 Indices laws

Find the value of $23^{-19} \div 23^9 \times 23^{-6}$

- A. 1. 23^{-43}
- B. 2. 23^{-34} ✓
- C. 3. 23^{-33}
- D. 4. 23^{-36}

Q5 Indices laws

Find the value of $37^{-14} \div 37^4 \times 37^{-12}$

- A. 1. 37^{-30} ✓
- B. 2. 37^{-20}
- C. 3. 37^{-24}
- D. 4. 37^{-38}

Q6 Indices laws

Find the value of $14^{-10} \div 14^{13} \times 14^{-7}$

- A. 1. 14^{-37}
- B. 2. 14^{-30} ✓
- C. 3. 14^{-26}
- D. 4. 14^{-25}

Q7 Negative indices power

Find the value of $64^{-12} \div 64^{14} \times 64^{-16}$

- A. 1. 64^{-45}
- B. 2. 64^{-50}
- C. 3. 64^{-37}
- D. 4. 64^{-42} ✓



Q8 Negative indices power

Find the value of $34^{-10} \div 34^7 \times 34^{-11}$

- A. 1.
 34^{-34}
- B. 2.
 34^{-37}
- C. 3.
 34^{-33}
- D. 4.
 34^{-28} ✓

Q9 Negative indices power

Find the value of $91^{-2} \div 91^7 \times 91^{-17}$

- A. 1. 91^{-26} ✓
- B. 2. 91^{-30}
- C. 3. 91^{-27}
- D. 4. 91^{-25}

Q10 Negative indices power

Find the value of $80^{-2} \div 80^{15} \times 80^{-10}$

- A. 1. 80^{-20}
- B. 2. 80^{-19}
- C. 3. 80^{-27} ✓
- D. 4. 80^{-26}

Q11 Negative exponents sum

Find the value of $\left(\frac{1}{4}\right)^{-4} + \left(\frac{1}{8}\right)^{-4} + \left(\frac{1}{5}\right)^{-4}$.

- A. 4974
- B. 4977 ✓
- C. 4987
- D. 4973

Q12 Negative exponents sum

Find the value of $\left(\frac{1}{3}\right)^{-4} + \left(\frac{1}{6}\right)^{-4} + \left(\frac{1}{8}\right)^{-4}$.

- A. 5473 ✓
- B. 5772
- C. 4769
- D. 4776

Q13 Negative exponents sum

Find the value of $\left(\frac{1}{3}\right)^{-3} + \left(\frac{1}{9}\right)^{-3} + \left(\frac{1}{4}\right)^{-3}$.

- A. 820 ✓
- B. 823
- C. 824
- D. 814



Q14 Negative exponents sum

$$\left(\frac{1}{4}\right)^{-2} + \left(\frac{1}{9}\right)^{-2} + \left(\frac{1}{3}\right)^{-2}.$$

Find the value of

A. 106



B. 108

C. 116

D. 103

Q15 Negative exponents sum

$$\left(\frac{1}{5}\right)^{-4} + \left(\frac{1}{9}\right)^{-4} + \left(\frac{1}{2}\right)^{-4}.$$

Find the value of

A. 7211

B. 7195

C. 7202



D. 7197

Q16 Nested square roots

Evaluate:

$$\sqrt{\left(7 + \sqrt{\left(71 + \sqrt{\left(93 + \sqrt{\left(40 + \sqrt{(81)}\right)}\right)}\right)}\right)}$$

A. 5

B. 4



C. 3

D. 8

Q17 Perfect cube expressionFind the value of p so that the expression $(15.97)^3 + 1.4373 \times p + (0.03)^3$ is a perfect cube.

A. 0.000027

B. 47.91

C. 16



D. 4096



Q18 indices equation

Find the value of n , when $3^{-7} \times 3^{(3n+4)} = \frac{3^{11}}{3^5}$.

A. 3

B. 5



C. 2

D. 4

Q19 negative power indices

$$\left[\left(\frac{7}{6}\right)^{-9} \times \left(\frac{6}{7}\right)^{-5} \times \left(\frac{1}{8}\right)^{-4} \right]^{-5}$$

A. $\left(\frac{48}{7}\right)^{22}$

B. $\left(\frac{7}{58}\right)^{20}$

C. $\left(\frac{7}{48}\right)^{20}$



D. $\left(\frac{9}{48}\right)^{19}$



Arithmetic

9 Questions • Answer Key

Q1 Age ratio change

The ages of Himani and Pushpraj are in the ratio of 9 : 5 respectively. After 5 years the ratio of their ages will be 7 : 4. What is the difference in their present ages?

A. 68

B. 60



C. 47

D. 48

Q2 Age ratio change

The ages of Ritika and Animesh are in the ratio of 7 : 9 respectively. After 6 years the ratio of their ages will be 4 : 5. What is the difference in their present ages?

A. 7

B. 24

C. 26

D. 12



Q3 Age ratio change

The ages of Himani and Pushpraj are in the ratio of 8 : 5 respectively. After 9 years the ratio of their ages will be 3 : 2. What is the difference in their present ages?

A. 15

B. 27



C. 16

D. 34

Q4 Age ratio change

The ages of Nishi and Vineet are in the ratio of 5 : 8 respectively. After 9 years the ratio of their ages will be 2 : 3. What is the difference in their present ages (in years)?

A. 7

B. 24

C. 13

D. 27



Q5 Age ratio change

The ages of Himani and Pushpraj are in the ratio of 9 : 7 respectively. After 6 years the ratio of their ages will be 5 : 4. What is the difference in their present ages?

A. 22

B. 12



C. 13

D. 31

Q6 Age ratio future

The ages of Misha and Kamal are in the ratio of 4 : 3 respectively. After 9 years the ratio of their ages will be 7 : 6. What is the difference in their present ages?

A. 2

B. 13

C. 3



D. 12

Q7 Age ratio future

The ages of Ayushi and Anmol are in the ratio of 2 : 7 respectively. After 4 years the ratio of their ages will be 3 : 8. What is the difference in their present ages?

A. 8

B. 6

C. 29

D. 20



Q8 ages ratio

The ages of Misha and Kamal are in the ratio of 2 : 3 respectively. After 6 years the ratio of their ages will be 7 : 9. What is the difference in their present ages?

A. 4



B. 23

C. 20

D. 19



Q9 ages ratio

The ages of Deeksha and Amit are in the ratio of 7 : 5 respectively. After 4 years the ratio of their ages will be 4 : 3. What is the difference in their present ages?

A. 14

B. 17

C. 15

D. 8



Arithmetic

144 Questions • Answer Key

Q1 Average age

The average age of 10 members of a family is 34 years. If the youngest member is 7 years old, what was the average age (in years) of the family members just before the birth of the youngest member?

A. 32

B. 28

C. 30



D. 31

Q2 Average basic

The sum of 10 numbers is 408. Find their average.

A. 40.8



B. 39.8

C. 38.8

D. 41.8

Q3 Average basic

The sum of 10 numbers is 336. Find their average.

A. 33.6



B. 32.6

C. 31.6

D. 34.6

Q4 Average basic

The sum of 8 numbers is 732. Find their average.

A. 91.5



B. 89.5

C. 92.5

D. 90.5

Q5 Average basic

The sum of 8 numbers is 756. Find their average.

A. 94.5



B. 92.5

C. 93.5

D. 95.5

Q6 Average basic

The sum of 10 numbers is 360. Find their average.

A. 35

B. 37

C. 34

D. 36



Q7 Average basic

The sum of 8 numbers is 912. Find their average.

A. 114



B. 112

C. 113

D. 115

Q8 Average basic

In a race, an athlete covers a distance of 456 m in 152 sec in the first lap. He covers the second lap of the same length in 76 sec. What is the average speed (in m/sec) of the athlete?

A. 5

B. 4



C. 10

D. 1

Q9 Average basic

The sum of 10 numbers is 372. Find their average.

A. 35.2

B. 36.2

C. 37.2



D. 38.2

Q10 Average basic

The sum of 8 numbers is 876. Find their average.

A. 108.5

B. 109.5



C. 107.5

D. 110.5



Q11 Average basic

The sum of 10 numbers is 432. Find their average.

A. 43.2



B. 41.2

C. 44.2

D. 42.2

Q12 Average even numbers

The average of first 109 even numbers is

A. 110.5

B. 110



C. 111

D. 109.5

Q13 Average even numbers

The average of first 102 even numbers is

A. 104

B. 102.5

C. 103



D. 103.5

Q14 Average even numbers

The average of first 134 even numbers is

A. 134.5

B. 135.5

C. 136

D. 135

**Q15 Average even numbers**

The average of first 120 even numbers is

A. 121.5

B. 122

C. 121



D. 120.5

Q16 Average even numbers

The average of first 101 even numbers is

A. 102



B. 102.5

C. 103

D. 101.5

Q17 Average even numbers

The average of first 133 even numbers is

A. 135

B. 134



C. 134.5

D. 133.5

Q18 Average even numbers

The average of first 128 even numbers is

A. 129



B. 130

C. 128.5

D. 129.5

Q19 Average even numbers

The average of first 113 even numbers is

A. 114.5

B. 114



C. 115

D. 113.5

Q20 Average even numbers

The average of first 121 even numbers is

A. 122



B. 122.5

C. 123

D. 121.5

Q21 Average even numbers

The average of first 137 even numbers is

A. 138



B. 138.5

C. 137.5

D. 139

Q22 Average even numbers

The average of first 112 even numbers is

A. 114

B. 113.5

C. 113



D. 112.5



Q23 Average even numbers

The average of first 139 even numbers is

- A. 139.5
- B. 140.5
- C. 141
- D. 140

**Q24 Average even numbers**

The average of first 118 even numbers is

- A. 118.5
- B. 119.5
- C. 119
- D. 120

**Q25 Average odd numbers**

The average of first 128 odd natural numbers, is:

- A. 128.5
- B. 127.5
- C. 129
- D. 128

**Q26 Average of even numbers**

The average of first 130 even numbers is

- A. 131.5
- B. 131
- C. 130.5
- D. 132

**Q27 Average of even numbers**

The average of first 136 even numbers is

- A. 137
- B. 138
- C. 137.5
- D. 136.5

**Q28 Average of even numbers**

The average of first 122 even numbers is

- A. 124
- B. 123
- C. 123.5
- D. 122.5

**Q29 Average of even numbers**

The average of first 138 even numbers is

- A. 139
- B. 138.5
- C. 140
- D. 139.5

**Q30 Average of even numbers**

The average of first 114 even numbers is

- A. 114.5
- B. 115.5
- C. 115
- D. 116

**Q31 Average of even numbers**

The average of first 129 even numbers is

- A. 131
- B. 129.5
- C. 130.5
- D. 130

**Q32 Average of even numbers**

The average of first 143 even numbers is

- A. 143.5
- B. 144.5
- C. 144
- D. 145

**Q33 Average of even numbers**

The average of first 116 even numbers is

- A. 117
- B. 116.5
- C. 118
- D. 117.5

**Q34 Average of even numbers**

The average of first 141 even numbers is

- A. 143
- B. 142.5
- C. 142
- D. 141.5



Q35 Average of even numbers

The average of first 124 even numbers is

A. 125



B. 124.5

C. 126

D. 125.5

Q36 Average of numbers

The sum of 8 numbers is 924. Find their average.

A. 114.5

B. 113.5

C. 115.5



D. 116.5

Q37 Average of numbers

The sum of 8 numbers is 720. Find their average.

A. 91

B. 90



C. 88

D. 89

Q38 Average of numbers

The sum of 8 numbers is 888. Find their average.

A. 111



B. 110

C. 109

D. 112

Q39 Average of numbers

The sum of 10 numbers is 300. Find their average.

A. 30



B. 28

C. 29

D. 31

Q40 Average of numbers

The sum of 10 numbers is 324. Find their average.

A. 33.4

B. 31.4

C. 32.4



D. 30.4

Q41 Average of numbers

The sum of 8 numbers is 948. Find their average.

A. 117.5

B. 118.5



C. 119.5

D. 116.5

Q42 Average of odd numbers

The average of first 123 odd natural numbers, is:

A. 124

B. 122.5

C. 123.5

D. 123

**Q43 Average of remaining**

The sum of five numbers is 655. The average of the first two numbers is 75 and the third number is 114. Find the average of the remaining two numbers?

A. 189

B. 196.5

C. 195.5



D. 190

Q44 Average of remaining

The sum of five numbers is 655. The average of the first two numbers is 76 and the third number is 107. Find the average of the remaining two numbers?

A. 199

B. 184

C. 198



D. 183

Q45 Average of remaining

The sum of five numbers is 655. The average of the first two numbers is 78 and the third number is 123. Find the average of the remaining two numbers?

A. 201

B. 202

C. 188



D. 189



Q46 Average of remaining

The sum of five numbers is 655. The average of the first two numbers is 78 and the third number is 129. Find the average of the remaining two numbers?

A. 185



B. 186

C. 208

D. 207

Q47 Average of remaining

The sum of five numbers is 655. The average of the first two numbers is 75 and the third number is 121. Find the average of the remaining two numbers?

A. 192



B. 196

C. 193

D. 197

Q48 Average of remaining

The sum of five numbers is 655. The average of the first two numbers is 78 and the third number is 117. Find the average of the remaining two numbers?

A. 196

B. 195

C. 192

D. 191

**Q49 Average of remaining**

The sum of five numbers is 655. The average of the first two numbers is 78 and the third number is 110. Find the average of the remaining two numbers?

A. 189

B. 195.5

C. 188

D. 194.5

**Q50 Average of remaining**

The sum of five numbers is 655. The average of the first two numbers is 75 and the third number is 112. Find the average of the remaining two numbers?

A. 196.5



B. 187

C. 188

D. 197.5

Q51 Average of remaining

The sum of five numbers is 655. The average of the first two numbers is 77 and the third number is 124. Find the average of the remaining two numbers?

A. 188.5



B. 189.5

C. 202

D. 201

Q52 Average of remaining

The sum of five numbers is 655. The average of the first two numbers is 75 and the third number is 118. Find the average of the remaining two numbers?

A. 194.5

B. 194

C. 193

D. 193.5

**Q53 Average of remaining**

The sum of five numbers is 655. The average of the first two numbers is 75 and the third number is 108. Find the average of the remaining two numbers?

A. 199.5

B. 184

C. 183

D. 198.5

**Q54 Average of remaining**

The sum of five numbers is 655. The average of the first two numbers is 78 and the third number is 115. Find the average of the remaining two numbers?

A. 193

B. 197

C. 194

D. 192

**Q55 Average of remaining**

The sum of five numbers is 655. The average of the first two numbers is 78 and the third number is 134. Find the average of the remaining two numbers?

A. 182.5



B. 183.5

C. 213

D. 212



Q56 Average of remaining

The sum of five numbers is 655. The average of the first two numbers is 76 and the third number is 109. Find the average of the remaining two numbers?

A. 186

B. 198

C. 185

D. 197

**Q57 Average of remaining**

The sum of five numbers is 655. The average of the first two numbers is 76 and the third number is 102. Find the average of the remaining two numbers?

A. 178

B. 200.5



C. 179

D. 201.5

Q58 Average of remaining

The sum of five numbers is 655. The average of the first two numbers is 75 and the third number is 116. Find the average of the remaining two numbers?

A. 195.5

B. 192

C. 194.5



D. 191

Q59 Average of remaining

The sum of five numbers is 655. The average of the first two numbers is 78 and the third number is 126. Find the average of the remaining two numbers?

A. 204

B. 186.5



C. 205

D. 187.5

Q60 Average of remaining

The sum of five numbers is 655. The average of the first two numbers is 75 and the third number is 130. Find the average of the remaining two numbers?

A. 188.5

B. 187.5



C. 205

D. 206

Q61 Average of remaining

The sum of five numbers is 655. The average of the first two numbers is 78 and the third number is 121. Find the average of the remaining two numbers?

A. 189



B. 199

C. 200

D. 190

Q62 Average of remaining

The sum of five numbers is 655. The average of the first two numbers is 77 and the third number is 125. Find the average of the remaining two numbers?

A. 188



B. 202

C. 189

D. 203

Q63 Average of remaining

The sum of five numbers is 655. The average of the first two numbers is 75 and the third number is 109. Find the average of the remaining two numbers?

A. 199

B. 184

C. 198



D. 185

Q64 Average of remaining

The sum of five numbers is 655. The average of the first two numbers is 77 and the third number is 130. Find the average of the remaining two numbers?

A. 207

B. 186.5

C. 185.5



D. 208

Q65 Average of remaining

The sum of five numbers is 655. The average of the first two numbers is 75 and the third number is 119. Find the average of the remaining two numbers?

A. 195

B. 196

C. 194

D. 193



Q66 Average of remaining

The sum of five numbers is 655. The average of the first two numbers is 78 and the third number is 130. Find the average of the remaining two numbers?

A. 209

B. 184.5



C. 185.5

D. 208

Q67 Average of remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 77 and the third number is 132. Find the average of the remaining two numbers?

A. 210

B. 185.5

C. 209

D. 184.5

**Q68 Average of remaining numbers**

The sum of five numbers is 655. The average of the first two numbers is 78 and the third number is 127. Find the average of the remaining two numbers?

A. 206

B. 205

C. 186



D. 187

Q69 Average of remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 78 and the third number is 119. Find the average of the remaining two numbers?

A. 197

B. 191

C. 190



D. 198

Q70 Average of remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 75 and the third number is 127. Find the average of the remaining two numbers?

A. 203

B. 189



C. 202

D. 190

Q71 Average of remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 75 and the third number is 129. Find the average of the remaining two numbers?

A. 204

B. 189

C. 188



D. 205

Q72 Average of remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 77 and the third number is 129. Find the average of the remaining two numbers?

A. 207

B. 187

C. 206

D. 186

**Q73 Average of remaining numbers**

The sum of five numbers is 655. The average of the first two numbers is 78 and the third number is 108. Find the average of the remaining two numbers?

A. 196.5

B. 187

C. 186

D. 195.5

**Q74 Average of remaining numbers**

The sum of five numbers is 655. The average of the first two numbers is 78 and the third number is 125. Find the average of the remaining two numbers?

A. 187



B. 188

C. 204

D. 203

Q75 Average of remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 75 and the third number is 123. Find the average of the remaining two numbers?

A. 199

B. 192

C. 191



D. 198



Q76 Average of remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 78 and the third number is 118. Find the average of the remaining two numbers?

A. 190.5



B. 197

C. 196

D. 191.5

Q77 Average of remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 76 and the third number is 108. Find the average of the remaining two numbers?

A. 198.5

B. 197.5



C. 185

D. 184

Q78 Average of remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 78 and the third number is 101. Find the average of the remaining two numbers?

A. 179

B. 200

C. 199



D. 180

Q79 Average of remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 78 and the third number is 111. Find the average of the remaining two numbers?

A. 194



B. 195

C. 190

D. 189

Q80 Average of three numbers

The average of X and Y is 40, that of Y and Z is 38, and that of Z and X is 42. Find the average of X, Y and Z.

A. 38

B. 42

C. 120

D. 40

**Q81 Average remaining half**

The average weight of a class of 82 students is 62.5 kg. If the average weight of half of the students is 83.6 kg, then find the average weight (in kg) of the remaining students of the class.

A. 46.2

B. 48.6

C. 52.9

D. 41.4

**Q82 Average scaling**

The average of the marks of 14 students in a class is 63. If the marks of each student are doubled, find the new average?

A. 126



B. 14

C. 28

D. 63

Q83 Average scaling

The average of the marks of 14 students in a class is 59. If the marks of each student are doubled, find the new average?

A. 28

B. 14

C. 118



D. 59

Q84 Average scaling

The average of the marks of 15 students in a class is 40. If the marks of each student are doubled, find the new average?

A. 80



B. 15

C. 30

D. 40

Q85 Average scaling

The average of the marks of 15 students in a class is 42. If the marks of each student are doubled, find the new average?

A. 84



B. 42

C. 30

D. 15



Q86 Average speed

A car travels 167 km in the first hour and 127 km in the second hour. What is the average speed (in km/h) of the car for the whole journey?

A. 145

B. 147



C. 146

D. 142

Q87 Combined average subjects

In an exam, the average marks obtained by John in English, Maths, Hindi and Drawing were 50.5. His average marks in Maths, Science, Social Studies and Craft were 70. If the average marks in all seven subjects was 58, his score in Maths was:

A. 52

B. 50

C. 76



D. 60

Q88 Effect on average

The average of the marks of 14 students in a class is 65. If the marks of each student are doubled, find the new average?

A. 28

B. 65

C. 130



D. 14

Q89 Effect on average

The average of the marks of 14 students in a class is 62. If the marks of each student are doubled, find the new average?

A. 124



B. 14

C. 62

D. 28

Q90 Effect on average

The average of the marks of 14 students in a class is 60. If the marks of each student are doubled, find the new average?

A. 120



B. 28

C. 14

D. 60

Q91 Effect on average

The average of the marks of 15 students in a class is 41. If the marks of each student are doubled, find the new average?

A. 30

B. 15

C. 41

D. 82

**Q92 Effect on average**

The average of the marks of 14 students in a class is 67. If the marks of each student are doubled, find the new average?

A. 134



B. 14

C. 28

D. 67

Q93 Weighted average

A class of 45 students weigh themselves. 10 students have an average weight of 55 kg, and the remaining students have an average score of 60 kg. Thus, the average weight (in kg) of the whole class is: (rounded off to the nearest integer)

A. 57

B. 58

C. 56

D. 59

**Q94 Weighted average**

Mukund bought 52 books for Rs 1130 from one shop and 44 books for Rs 910 from another. What is the average price (in Rs) he paid per book ?

A. 24.25

B. 21.25



C. 22.25

D. 23.25

Q95 Weighted average

Anwar bought 52 books for Rs 1130 from one shop and 47 books for Rs 925 from another. What is the average price (in Rs) he paid per book ?

A. 23.76

B. 21.76

C. 22.76

D. 20.76



Q96 Weighted average price

Tushar bought 52 books for Rs 1125 from one shop and 48 books for Rs 910 from another. What is the average price (in Rs) he paid per book ?

A. 1036.8

B. 1021.8

C. 1031.8

D. 1011.8

Q97 Weighted average price

Chetan bought 52 books for Rs 1125 from one shop and 48 books for Rs 925 from another. What is the average price (in Rs) he paid per book ?

A. 22.5

B. 20.5

C. 23.5

D. 21.5

Q98 average doubled marks

The average of the marks of 15 students in a class is 43. If the marks of each student are doubled, find the new average?

A. 43

B. 86

C. 15

D. 30

Q99 average doubled marks

The average of the marks of 14 students in a class is 66. If the marks of each student are doubled, find the new average?

A. 14

B. 66

C. 132

D. 28

Q100 average from sum

The sum of 10 numbers is 276. Find their average.

A. 26.6

B. 25.6

C. 27.6

D. 28.6

Q101 average from sum

The sum of 8 numbers is 804. Find out the average.

A. 100.5

B. 98.5

C. 101.5

D. 99.5

Q102 average from sum

The sum of 8 numbers is 840. Find their average.

A. 106

B. 104

C. 105

D. 103

Q103 average from sum

The sum of 8 numbers is 900. Find their average.

A. 112.5

B. 110.5

C. 111.5

D. 113.5

Q104 average from sum

The sum of 8 numbers is 684. Find their average.

A. 86.5

B. 84.5

C. 85.5

D. 83.5

Q105 average from sum

The sum of 8 numbers is 936. Find their average.

A. 115

B. 117

C. 118

D. 116

Q106 average from sum

The sum of 10 numbers is 240. Find their average.

A. 25

B. 23

C. 22

D. 24



Q107 average from sum

The sum of 8 numbers is 696. Find their average.

A. 87



B. 85

C. 86

D. 88

Q108 average from sum

The sum of 10 numbers is 252. Find their average.

A. 23.2

B. 24.2

C. 25.2



D. 26.2

Q109 average from sum

The sum of 8 numbers is 864. Find their average.

A. 107

B. 108



C. 109

D. 106

Q110 average of even numbers

The average of first 111 even numbers is

A. 111.5

B. 113

C. 112



D. 112.5

Q111 average of even numbers

The average of first 103 even numbers is

A. 103.5

B. 104



C. 104.5

D. 105

Q112 average of even numbers

The average of first 110 even numbers is

A. 112

B. 110.5

C. 111



D. 111.5

Q113 average of even numbers

The average of first 117 even numbers is

A. 117.5

B. 119

C. 118



D. 118.5

Q114 average of odd numbers

The average of first 126 odd natural numbers, is:

A. 127

B. 126



C. 126.5

D. 125.5

Q115 average of odd numbers

The average of first 122 odd natural numbers, is:

A. 121.5

B. 123

C. 122



D. 122.5

Q116 average of odd numbers

The average of first 120 odd natural numbers, is:

A. 121

B. 120



C. 119.5

D. 120.5

Q117 average of odd numbers

The average of first 119 odd natural numbers, is:

A. 120

B. 118.5

C. 119.5

D. 119

**Q118** average of odd numbers

The average of first 127 odd natural numbers, is:

A. 126.5

B. 128

C. 127.5

D. 127



Q119 average of odd numbers

The average of first 124 odd natural numbers, is:

A. 124



B. 123.5

C. 125

D. 124.5

Q120 average of odd numbers

The average of first 121 odd natural numbers, is:

A. 120.5

B. 121



C. 122

D. 121.5

Q121 average remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 76 and the third number is 110. Find the average of the remaining two numbers?

A. 186

B. 196.5



C. 187

D. 197.5

Q122 average remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 78 and the third number is 104. Find the average of the remaining two numbers?

A. 198.5

B. 183

C. 182

D. 197.5

**Q123** average remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 77 and the third number is 123. Find the average of the remaining two numbers?

A. 201

B. 189



C. 190

D. 200

Q124 average remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 76 and the third number is 105. Find the average of the remaining two numbers?

A. 181

B. 199



C. 182

D. 200

Q125 average remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 77 and the third number is 128. Find the average of the remaining two numbers?

A. 186.5



B. 205

C. 187.5

D. 206

Q126 average remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 75 and the third number is 128. Find the average of the remaining two numbers?

A. 189.5

B. 204

C. 203

D. 188.5

**Q127** average remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 76 and the third number is 106. Find the average of the remaining two numbers?

A. 182

B. 183

C. 199.5

D. 198.5

**Q128** average remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 78 and the third number is 103. Find the average of the remaining two numbers?

A. 199

B. 181

C. 182

D. 198



Q129 average remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 76 and the third number is 104. Find the average of the remaining two numbers?

- A. 181
- B. 200.5
- C. 180
- D. 199.5

**Q130** average remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 75 and the third number is 107. Find the average of the remaining two numbers?

- A. 200
- B. 199
- C. 183
- D. 182

**Q131** average remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 75 and the third number is 135. Find the average of the remaining two numbers?

- A. 211
- B. 186
- C. 210
- D. 185

**Q132** average remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 78 and the third number is 102. Find the average of the remaining two numbers?

- A. 199.5
- B. 181
- C. 180
- D. 198.5

**Q133** average remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 76 and the third number is 103. Find the average of the remaining two numbers?

- A. 200
- B. 201
- C. 180
- D. 179

**Q134** average remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 75 and the third number is 122. Find the average of the remaining two numbers?

- A. 198
- B. 197
- C. 192.5
- D. 191.5

**Q135** average remaining numbers

The sum of five numbers is 655. The average of the first two numbers is 77 and the third number is 134. Find the average of the remaining two numbers?

- A. 212
- B. 183.5
- C. 211
- D. 184.5

**Q136** average replacement

The average weight of 7 persons increases by 3 kg when a new person comes in place of one of them weighing 56 kg. What might be the weight of the new person?

- A. 66 kg
- B. 71 kg
- C. 59 kg
- D. 77 kg

**Q137** new average included

The average of 12 numbers is 39. If the number 52 is also included, then what will be the average of these 13 numbers?

- A. 43.33
- B. 46
- C. 42
- D. 40

**Q138** weighted average

In a class the average marks obtained in a science test by a group of 12 students is 70, by another group of 15 students is 85 and that by another group of 18 students is 90. Find the average marks of all the students.

- A. 86
- B. 83
- C. 84.5
- D. 82.5



Q139 weighted average price

Pinky bought 25 books at the rate of ₹14 each, 40 pens at the rate of ₹7 each and 15 pencils at the rate of ₹6 each. Calculate the average price (in ₹) of all the stationery goods.

A. 9



B. 8

C. 6

D. 7

Q140 weighted average price

Nirmal bought 52 books for Rs 1130 from one shop and 47 books for Rs 900 from another. What is the average price (in Rs) he paid per book ?

A. 1030.81

B. 1020.81



C. 1035.81

D. 1010.81

Q141 weighted average price

Kanchan bought 52 books for Rs 1130 from one shop and 47 books for Rs 920 from another. What is the average price (in Rs) he paid per book ?

A. 1030.3



B. 1020.3

C. 1040.3

D. 1045.3

Q142 weighted average price

Rupesh bought 52 books for Rs 1130 from one shop and 47 books for Rs 910 from another. What is the average price (in Rs) he paid per book ?

A. 1015.56

B. 1035.56

C. 1025.56



D. 1040.56

Q143 weighted average price

Mohan bought 52 books for Rs 1130 from one shop and 44 books for Rs 920 from another. What is the average price (in Rs) he paid per book ?

A. 1033.75



B. 1048.75

C. 1043.75

D. 1023.75

Q144 weighted average price

Kanchan bought 52 books for Rs 1130 from one shop and 47 books for Rs 905 from another. What is the average price (in Rs) he paid per book ?

A. 1038.18

B. 1013.18

C. 1023.18



D. 1033.18



Arithmetic

69 Questions • Answer Key

Q1 CI SI difference

The difference between compound interest and simple interest for 3 years at the rate of 20% per annum is ₹240. What is the principal lent?

A. ₹1,975

B. ₹1,675

C. ₹1,775

D. ₹1,875 ✓

Q2 CI SI difference

The difference between the compound interest, compounded annually, and the simple interest earned on a certain sum of money in two years at 10% interest per annum, is ₹197.2. Find the sum invested.

A. ₹18,720

B. ₹19,720 ✓

C. ₹16,720

D. ₹17,720

Q3 CI SI difference

The difference between simple and compound interests, compounded annually, on a certain sum of money for 2 years at 5% per annum is ₹1,600. Find the sum (in ₹).

A. 32,000

B. 6,40,000 ✓

C. 64,000

D. 3,20,000

Q4 CI SI difference

Find the difference between the simple interest and compound interest, compounded annually, on an amount of ₹35,000 at 12% for 3 years.

A. ₹1,527.48

B. ₹1,572.48 ✓

C. ₹1,725.84

D. ₹1,752.84

Q5 CI SI difference

The difference between compound interest, compounded annually, and simple interest on a certain sum at 10% per annum for 2 years is ₹1,060. Find the sum (in ₹).

A. 1,06,000 ✓

B. 1,06,600

C. 1,06,060

D. 1,60,000

Q6 CI SI difference

A sum of ₹5,000 is invested for 2 years at an annual interest rate of 6%. What will be the difference in the Compound Interest (CI) and Simple Interest (SI) at the end of 2 years? Use $(1.06)^2 = 1.1236$

A. ₹28

B. ₹18 ✓

C. ₹16

D. ₹48

Q7 CI SI difference

The difference (in ₹) between C.I. and S.I. on a certain sum at 12% per annum compounded annually for 2 years is ₹360. Find the sum (in ₹).

A. 25,000 ✓

B. 23,560

C. 25,060

D. 23,650

Q8 CI SI difference

The difference between the compound interest (compounded annually) and the simple interest on a certain sum at 10% per annum for 2 years is ₹547. Find the sum.

A. ₹54,700 ✓

B. ₹74,500

C. ₹45,700

D. ₹50,000



Q9 CI SI difference

The difference between the compound interest and simple interest for the sum of ₹5,000 at 10% per annum for two years is:

A. ₹50



B. ₹53

C. ₹49

D. ₹52

Q10 CI SI difference

The difference between the compound interest (compounded annually) and simple interest on a sum of money for two years at 11% per annum is ₹242. Find the sum.

A. ₹20,000



B. ₹21,800

C. ₹20,500

D. ₹21,000

Q11 CI SI difference rate

The difference between the compound and simple interest accrued on ₹18,000 in 2 years was ₹405. What was the rate of interest percentage compounded per annum?

A. 16%

B. 13%

C. 12%

D. 15%

**Q12 CI SI investment ratio**

X invested ₹m for simple interest at 10% rate of interest per annum for 4 years, and Y invested ₹2,000 more than X for compound interest at 20% rate of interest per annum for 2 years. The ratio of the interest obtained by X and Y is 10 : 33, respectively. Find the investment of X.

A. ₹1000



B. ₹4,000

C. ₹3,000

D. ₹2,000

Q13 CI amount

An amount of ₹50,000 would become ₹_____ at 20% per annum compound interest, compounded annually, in 4 years.

A. 1,08,630

B. 1,06,380

C. 1,00,638

D. 1,03,680

**Q14 CI amount**

Swara deposited ₹75,000 with a finance company for 3 years at an interest of 12% per annum, compounded annually. What is the compound interest that Swara gets after 3 years?

A. ₹30,036.25

B. ₹33,009.60

C. ₹33,609.25

D. ₹30,369.60

**Q15 CI amount**

If ₹2,000 is invested at an annual compound interest rate of 6% for 3 years, what is the amount after 3 years? (In nearest rupee)

A. ₹2,375

B. ₹2,382



C. ₹2,396

D. ₹2,412

Q16 CI amount

Find the compound interest on an amount of ₹24,000 after three years, when compounded annually at the rate of 15% per annum.

A. ₹11,901

B. ₹12,501



C. ₹12,905

D. ₹11,250

Q17 CI amount

What is the amount, including the interest, if ₹45,000 is invested for 3 years at the rate of 10% per annum compounded annually?

A. ₹59,895



B. ₹59,890

C. ₹59,885

D. ₹59,900



Q18 CI annual

What is the compound interest (in ₹) on ₹1,900 at 5% per annum for 2 years, compounded annually?

- A. 188.90
- B. 207.80
- C. 198.50
- D. 194.75

**Q19 CI annual**

What will be the compound interest on a sum of ₹75,000 after 2 years at the rate of 10% per annum, compounded annually?

- A. ₹7,500
- B. ₹15,750
- C. ₹75,000
- D. ₹90,750

**Q20 CI different rates**

The amount that ₹4,375 computes in 2 years at annual compound interest, if the rates for the successive years be 8% and 12% per annum, respectively, is:

- A. ₹5,292
- B. ₹5,250
- C. ₹4,812
- D. ₹4,417

**Q21 CI doubling time**

At 20% per annum rate, an amount is doubled in approximately in ____ years at compound interest.

- A. 4
- B. 5
- C. 3
- D. 2

**Q22 CI find principal**

A certain sum invested at 8% per annum compound interest, compounded annually, amounts to ₹10,580 at the end of 2 years. Find the sum.

- A. ₹9,007.64
- B. ₹9,070.64
- C. ₹9,600.70
- D. ₹9,400.70

**Q23 CI find principal**

The compound interest on a certain sum of money for two years at 8% per annum is ₹312. What is the principal amount (in ₹)?

- A. 1,750
- B. 1,800
- C. 1,875
- D. 1,855

**Q24 CI find rate**

At what rate per cent of compound interest will a sum of ₹2,000 amount to ₹4,394 in 3 years?

- A. 20
- B. 35
- C. 30
- D. 25

**Q25 CI find rate**

A sum of money invested at compound interest amounts to ₹9,600 in 2 years and to ₹10,800 in 3 years. Find the rate of interest per annum.

- A. 11.4%
- B. 13.4%
- C. 12.5%
- D. 10.5%

**Q26 CI find rate**

Salim borrows a sum of ₹60,000 from the bank for 18 months at R% per annum compound interest (interest being calculated half yearly). The amount paid back by Salim to the bank was ₹69,457.5. The value of R is:

- A. 5%
- B. 12%
- C. 20%
- D. 10%

**Q27 CI from SI rate**

There is a 40% increase in an amount in 4 years at simple interest. What will be the compound interest on ₹15,000 after 3 years at the same rate (compounded annually)?

- A. ₹5,000
- B. ₹4,965
- C. ₹19,965
- D. ₹1,331



Q28 CI half yearly

Calculate the compound interest on ₹72,000 at the rate of 9% per annum for 18 months when interest is compounded half yearly (rounded off up to the nearest ₹).

- A. ₹10,475
- B. ₹10,361
- C. ₹10,557
- D. ₹10,164

**Q29 CI half yearly**

A bank gives 12% per annum interest on an account. If the interest is compounded half-yearly, then _____ of the principal would have been earned more in a year as interest on the account.

- A. 0.36%
- B. 3.6%
- C. 0.18%
- D. 1.8%

**Q30 CI half-yearly**

A principal amount of ₹8,000 is invested at an annual interest rate of 5% compounded half-yearly. What will be the compound interest earned after 4 years?

[Use $(1.025)^8 = 1.2184$]

- A. ₹1,747.20
- B. ₹1,175.20
- C. ₹1,475.60
- D. ₹1,757.60

**Q31 CI half-yearly**

Nisha lent a sum of ₹50,000 to Anu for one year and six months at a rate of 10% per annum compound interest, compounded half yearly. The amount Anu has to pay back is:

- A. ₹58,522.25
- B. ₹57,881.25
- C. ₹58,000
- D. ₹5,57,987.50

**Q32 CI half-yearly**

Find the compound interest (in ₹) on ₹2,00,000 in 1.5 years at 4% per annum, the interest being compounded half-yearly.

- A. 12,221.60
- B. 12,241.60
- C. 12,441.60
- D. 12,421.60

**Q33 CI half-yearly**

Find the compound interest on ₹19,375 in 1 year at 8% per annum, the interest being compounded half-yearly.

- A. ₹1,581
- B. ₹1,561
- C. ₹1,541
- D. ₹1,591

**Q34 CI half-yearly**

An amount of ₹50,000 is invested at an annual interest rate of 4%, compounded half yearly. What will be the total amount after 2 years (round up to two decimal places)?

- A. ₹52,121.61
- B. ₹55,000
- C. ₹54,121.61
- D. ₹53,120

**Q35 CI half-yearly**

A sum of ₹8,000 is invested at an annual interest rate of 12% compounded half-yearly for 2 years. Calculate the compound interest earned at the end of 2 years. (Rounded off to the nearest integer)

- A. ₹2,100
- B. ₹2,280
- C. ₹2,200
- D. ₹2,150

**Q36 CI half-yearly**

Find the compound interest (in ₹, rounded off to the nearest integer) on ₹2,55,000 in 1.5 years at 8% per annum, the interest being compounded half-yearly.

- A. 31,840
- B. 32,480
- C. 34,180
- D. 31,480



Q37 CI half-yearly

What is the interest amount for ₹40,000 at the rate of 10% per annum compounded half yearly for 1.5 years?

A. ₹6,305



B. ₹6,335

C. ₹6,315

D. ₹6,325

Q38 CI half-yearly deposits

A bank offers 10% per annum compound interest calculated on half-yearly basis. A customer deposits ₹3,60,000 each on 1st January and 1st July of a year. At the end of the year, find the amount he would have gained by way of interest.

A. ₹4,33,800

B. ₹3,24,900

C. ₹3,75,600

D. ₹54,900

**Q39 CI half-yearly difference**

What is the difference between the compound interest on ₹10,000 for 1.5 years at 8% per annum, compounded yearly and half-yearly?

A. ₹16.64



B. ₹61.64

C. ₹10.06

D. ₹6.64

Q40 CI half-yearly principal

Radhika invested a sum of money at a compound interest of 40% per annum compounding half-yearly for 18 months. If the amount received by Radhika at the end of 18 months is ₹51,840, then what was the sum of money (in ₹) invested by Radhika?

A. 29,500

B. 30,000



C. 29,000

D. 30,500

Q41 CI half-yearly principal

Mamta invested a certain amount for compound interest at 10% per annum (compounded half yearly) for 2 years. If the interest obtained by Mamta is ₹1,034.43, then find the total amount invested by her.

A. ₹4,400

B. ₹4,200

C. ₹4,800



D. ₹4,600

Q42 CI interest amount

A trader invests ₹50,000 at an annual compound interest rate of 6%. Find half of compound interest received after 3 years.

A. ₹4,775.4



B. ₹4,575.4

C. ₹4,675.4

D. ₹4,745.4

Q43 CI interest amount

Paul deposited ₹41,375 in a private bank offering 20% compound interest for three years, compounding annually. What is the total interest (in ₹) received by Paul?

A. 30,121



B. 29,291

C. 30,212

D. 30,512

Q44 CI principal

Ajay received ₹41,160 for lending ₹z for 3 years at the rate of 40% per annum compound interest. What is the value of z (in ₹)?

A. 15,250

B. 15,750

C. 15,000



D. 15,500

Q45 CI principal

On what sum (in ₹) will the compound interest at 2% p.a. for 2 years compounded annually be ₹9,696?

A. 2,70,000

B. 2,40,000



C. 2,20,000

D. 2,50,000



Q46 CI rate

What is the rate percentage per annum if ₹4,800 amounts to ₹5,043 in 2 years when interest is compounded yearly?

A. 2.5%



B. 2.0%

C. 5%

D. 3%

Q47 CI rate

At what rate percentage per annum (correct to one place of decimal) will ₹17,280 amount to ₹23,520 in 2 years, if the interest is compounded annually?

A. 16.4%

B. 15.4%

C. 15.9%

D. 16.7%

**Q48 CI rate finding**

At what rate of compound interest per annum will a sum of ₹3,600 become ₹4,277.16 in 2 years?

A. 8%

B. 8.5%

C. 9%



D. 9.5%

Q49 CI semi-annual

Shagun invested ₹30,000 at compound interest of 40% per annum, compounded semi-annually. If she received ₹4x after 24 months, then what is the value of 1.5x (in ₹)?

A. 40,250

B. 15,552

C. 23,328



D. 62,208

Q50 CI semi-annual difference

On an amount, the difference in interests is ₹225 at 10% per annum rate when the interest is compounded semi-annually and annually, respectively, in a year. The amount (in ₹) is:

A. 80,000

B. 75,000

C. 90,000



D. 1,00,000

Q51 CI three years

An amount of ₹20,000 is invested at an annual interest rate of 10%, compounded annually. What will be the compound interest earned after 3 years?

A. ₹5,625

B. ₹6,430

C. ₹6,777

D. ₹6,620

**Q52 CI time**

In how many months, at a rate of 6% compound interest per annum, will a sum of ₹1,200 become ₹1,348.32.?

A. 30 months

B. 24 months



C. 12 months

D. 18 months

Q53 CI two years

If you give ₹4,000 to your friend for 2 years at an interest rate of 5%, compounded annually. How much money (in ₹) will your friend return after 2 years?

A. 44,410

B. 4,410



C. 8,820

D. 441

Q54 CI two years

Diya borrowed a sum of ₹25,000 from Abha for two years. If the rate of interest is 8% compounded annually, find the amount that Diya has to pay back.

A. ₹27,610

B. ₹29,160



C. ₹26,910

D. ₹28,360

Q55 CI two years

What will be the compound interest (in ₹) on a sum of ₹30,000 after two years at a rate of 16% per annum compounded annually?

A. 10,368



B. 10,638

C. 10,683

D. 10,386



Q56 CI two years

A money lender borrows a sum of ₹7,000 from market at compound interest at a rate of 5% per annum, compounded annually. The amount paid after two year will be:

- A. ₹7,800
- B. ₹7,717.50 ✓
- C. ₹7,860.25
- D. ₹7,900

Q57 CI year difference

A sum of ₹4,000 is invested at 10% per annum, compounded annually. What will the difference between the compound interest (in ₹) earned in the second year and the first year be?

- A. 60
- B. 40 ✓
- C. 50
- D. 46

Q58 Effective annual rate

The rate of interest is 8% per annum and the interest is compounded semi-annually. The equivalent rate of interest per annum in a time period of one year is ____%.

- A. 8.16 ✓
- B. 8.20
- C. 8.25
- D. 8.00

Q59 Growth rate compounding

In a laboratory, the count of bacteria in a certain experiment was increasing at the rate of 4.4% per hour. Find the count of bacteria at the end of 2 hours if the count was initially 8,05,00,000.

- A. 8,44,39,855
- B. 8,77,39,884
- C. 8,78,39,878
- D. 8,77,39,848 ✓

Q60 Growth rate compounding

A city has a population of 10,000 people and population grows at a rate of 10% per annum. What will be the population in 3 years?

- A. 1,331
- B. 13,310 ✓
- C. 13,000
- D. 3,310

Q61 Growth rate compounding

Two years ago, the population of a city was 1,10,000. The population increased by 10% in the first year and decreased by 10% in the second year. Find the present population.

- A. 1,08,500
- B. 1,08,800
- C. 1,08,600
- D. 1,08,900 ✓

Q62 Growth rate compounding

The population of a town was 1,20,000 at the end of 2017. It increases at a rate of 7% per annum. What will the population be at the end of 2019?

- A. 1,37,570
- B. 1,37,285
- C. 1,37,388 ✓
- D. 1,37,680

Q63 Growth rate compounding

The population of insects in a colony 2 years ago was 12,000. If the growth rate of the population is 5%, what is the present population of insects in the colony?

- A. 13,215
- B. 13,210
- C. 13,225
- D. 13,230 ✓

Q64 Population decline CI

A town had 1,60,000 inhabitants in 2021. Its population declines at a rate of 5% per annum. What will be its population in 2024?

- A. 1,00,000
- B. 1,16,640
- C. 1,37,180 ✓
- D. 99,000



Q65 depreciation

The value of a furniture set depreciates every year by 5%. If the present value of the furniture is ₹1,20,000, what will be its value after 2 years?

A. ₹1,08,300



B. ₹1,10,000

C. ₹1,08,000

D. ₹1,09,500

Q66 depreciation

The value of an LED television depreciates every year by 5%. If the present value of the LED TV is ₹67,000, what will be its value after 2 years?

A. ₹60,467.50



B. ₹59,816

C. ₹60,476.75

D. ₹59,746.50

Q67 CI half yearly

Find the compound interest on ₹20,000 at 20% p.a for $1\frac{1}{2}$ years compounded half – yearly.

A. ₹5,620

B. ₹6,620

C. ₹4,620



D. ₹7,620

Q68 CI half yearly

Find the compound interest on ₹21,500 at 17% per annum for $1\frac{1}{2}$ year, interest being compounded half yearly. (Round to the nearest paise.)

A. ₹5,998.36

B. ₹5,905.12

C. ₹5,961.72



D. ₹5,938.26

Q69 CI two years

Find the compound interest on ₹80,000 at 10% per annum for 2 years, compounded annually.

A. ₹18,800



B. ₹20,800

C. ₹16,800

D. ₹22,800



Arithmetic

37 Questions • Answer Key

Q1 Add water ratio

The ratio of milk and water in a 77 litre mixture is 6 : 5. Find the quantity (in litres) of water to be added to the mixture in order to make this ratio 1:1.

A. 4

B. 17

C. 7



D. 5

Q2 Alligation with profit

In what ratio should sugar costing ₹27 per kg be mixed with sugar costing ₹55 per kg so that by selling the mixture at ₹57.6 per kg, there is a profit of 44%?

A. 14 : 16

B. 15 : 17

C. 15 : 11

D. 15 : 13



Q3 Alligation with profit

In what ratio should sugar costing ₹71 per kg be mixed with sugar costing ₹22 per kg so that by selling the mixture at ₹41.6 per kg, there is a profit of 30%?

A. 12 : 41

B. 12 : 37

C. 11 : 37

D. 10 : 39



Q4 Alligation with profit

In what ratio should sugar costing ₹84 per kg be mixed with sugar costing ₹51 per kg so that by selling the mixture at ₹90.2 per kg, there is a profit of 10%?

A. 32 : 3

B. 35 : 2

C. 31 : 2



D. 33 : 3

Q5 Alligation with profit

In what ratio should sugar costing ₹24 per kg be mixed with sugar costing ₹47 per kg so that by selling the mixture at ₹42.9 per kg, there is a profit of 30%?

A. 8 : 15

B. 14 : 9



C. 7 : 15

D. 10 : 13

Q6 Alligation with profit

In what ratio should sugar costing ₹10 per kg be mixed with sugar costing ₹86 per kg so that by selling the mixture at ₹83.2 per kg, there is a profit of 30%?

A. 55 : 23

B. 22 : 54



C. 56 : 24

D. 53 : 23

Q7 Alligation with profit

In what ratio should sugar costing ₹48 per kg be mixed with sugar costing ₹22 per kg so that by selling the mixture at ₹40.6 per kg, there is a profit of 16%?

A. 13 : 13



B. 15 : 11

C. 14 : 15

D. 15 : 14

Q8 Alligation with profit

In what ratio should sugar costing ₹64 per kg be mixed with sugar costing ₹22 per kg so that by selling the mixture at ₹70.8 per kg, there is a profit of 20%?

A. 37 : 5



B. 38 : 3

C. 36 : 3

D. 35 : 6



Q9 Alligation with profit

In what ratio should sugar costing ₹78 per kg be mixed with sugar costing ₹14 per kg so that by selling the mixture at ₹73.5 per kg, there is a profit of 47%?

A. 34 : 27

B. 35 : 30

C. 37 : 26

D. 36 : 28

**Q10 Alligation with profit**

In what ratio should sugar costing ₹41 per kg be mixed with sugar costing ₹69 per kg so that by selling the mixture at ₹73.5 per kg, there is a profit of 50%?

A. 20 : 8



B. 6 : 21

C. 10 : 22

D. 9 : 22

Q11 Alligation with profit

In what ratio should sugar costing ₹17 per kg be mixed with sugar costing ₹72 per kg so that by selling the mixture at ₹41.3 per kg, there is a profit of 18%?

A. 20 : 38

B. 16 : 39

C. 37 : 18



D. 16 : 38

Q12 Mix solutions

For a chemistry experiment, Veena has 60 ml of 25% solution of ferrous sulphate. How many millilitres of 60% solution should she add to make a 30% solution of ferrous sulphate?

A. 25 ml

B. 15 ml

C. 20 ml

D. 10 ml

**Q13 Mixing two varieties**

Two types of rice costing ₹50 per kg and ₹70 per kg are mixed together to make a blend that costs ₹60 per kg. In what ratio should the two types of rice be mixed?

A. 4 : 3

B. 3 : 2

C. 2 : 3

D. 1 : 1

**Q14 Mixing two varieties**

Find the ratio in which rice at ₹36.75 per kg should be mixed with rice at ₹42.25 per kg to produce a mixture worth ₹40.50.

A. 169 : 147

B. 15 : 7

C. 147 : 169

D. 7 : 15

**Q15 Mixture alligation**

A chemist has two solutions of alcohol and water. Solution A contains 70% alcohol, and solution B contains 30% alcohol. In what ratio should he mix them to get a solution containing 50% alcohol?

A. 1 : 2

B. 2 : 1

C. 1 : 3

D. 1 : 1

**Q16 Mixture cost per kg**

A shopkeeper mixes two types of rice costing ₹385 per five kg and ₹540 per five kg in the ratio of 9 : 11. Find the net cost of resulting mixture per 2 kg.

A. ₹188.10



B. ₹192.70

C. ₹186.20

D. ₹178.50

Q17 Mixture price

A shopkeeper has two types of rice, one costing ₹60 per kg and the other costing ₹80 per kg. He mixes them in the ratio of 3 : 2. What is the price per kg of the resulting mixture?

A. ₹64

B. ₹66

C. ₹68



D. ₹62



Q18 Mixture ratio profit

In what ratio should sugar costing ₹83 per kg be mixed with sugar costing ₹46 per kg so that by selling the mixture at ₹80.3 per kg, there is a profit of 46%?

A. 8 : 30

B. 9 : 28

C. 10 : 27

D. 7 : 30

Q19 Mixture ratio profit

In what ratio should sugar costing ₹72 per kg be mixed with sugar costing ₹12 per kg so that by selling the mixture at ₹43.4 per kg, there is a profit of 40%?

A. 21 : 43

B. 17 : 40

C. 20 : 39

D. 19 : 41

Q20 Mixture ratio profit

In what ratio should sugar costing ₹52 per kg be mixed with sugar costing ₹73 per kg so that by selling the mixture at ₹87.1 per kg, there is a profit of 30%?

A. 14 : 4

B. 14 : 8

C. 13 : 5

D. 6 : 15

Q21 Mixture ratio profit

In what ratio should sugar costing ₹74 per kg be mixed with sugar costing ₹27 per kg so that by selling the mixture at ₹45.6 per kg, there is a profit of 14%?

A. 17 : 36

B. 15 : 36

C. 13 : 34

D. 12 : 32

Q22 Mixture ratio profit

In what ratio should sugar costing ₹40 per kg be mixed with sugar costing ₹81 per kg so that by selling the mixture at ₹57.5 per kg, there is a profit of 25%?

A. 5 : 33

B. 35 : 6

C. 8 : 36

D. 4 : 34

Q23 Mixture ratio profit

In what ratio should sugar costing ₹36 per kg be mixed with sugar costing ₹13 per kg so that by selling the mixture at ₹15.4 per kg, there is a profit of 10%?

A. 1 : 22

B. 2 : 20

C. 2 : 21

D. 2 : 24

Q24 Mixture ratio profit

In what ratio should sugar costing ₹71 per kg be mixed with sugar costing ₹29 per kg so that by selling the mixture at ₹32.4 per kg, there is a profit of 8%?

A. 2 : 40

B. 1 : 41

C. 3 : 40

D. 3 : 43

Q25 Mixture ratio profit

In what ratio should sugar costing ₹10 per kg be mixed with sugar costing ₹49 per kg so that by selling the mixture at ₹54.6 per kg, there is a profit of 40%?

A. 28 : 12

B. 10 : 29

C. 27 : 8

D. 31 : 11

Q26 Mixture two varieties

In what ratio must a seller mix two varieties of teas costing ₹80 and ₹120 per kg respectively so as to get a mixture worth ₹100 per kg?

A. 1 : 2

B. 2 : 1

C. 1 : 1

D. 3 : 5

Q27 Water milk gain

In what ratio must water be mixed with milk to gain 15% by selling the mixture at cost price?

A. 20 : 3

B. 17 : 3

C. 3 : 17

D. 3 : 20



Q28 alligation cost price

In what ratio should sugar costing ₹84 per kg be mixed with sugar costing ₹59 per kg so that by selling the mixture at ₹73.7 per kg, there is a profit of 10%?

A. 6 : 15

B. 8 : 17

C. 7 : 19

D. 6 : 18

Q29 alligation cost price

How much wheat (in kg, rounded off to the nearest integer) costing ₹36 per kg must be mixed with 55 kg of wheat costing ₹45 per kg so that there may be a gain of 20% by selling the mixture at ₹50 per kg?

A. 36

B. 28

C. 32

D. 30

Q30 alligation cost price

In what ratio should sugar costing ₹74 per kg be mixed with sugar costing ₹41 per kg so that by selling the mixture at ₹85.8 per kg, there is a profit of 30%?

A. 24 : 9

B. 27 : 6

C. 24 : 6

D. 25 : 8

Q31 alligation cost price

In what ratio should sugar costing ₹10 per kg be mixed with sugar costing ₹61 per kg so that by selling the mixture at ₹31.5 per kg, there is a profit of 26%?

A. 36 : 15

B. 16 : 35

C. 17 : 37

D. 16 : 37

Q32 alligation cost price

In what ratio should sugar costing ₹78 per kg be mixed with sugar costing ₹36 per kg so that by selling the mixture at ₹86.8 per kg, there is a profit of 24%?

A. 36 : 10

B. 32 : 9

C. 32 : 10

D. 34 : 8

Q33 alligation mean price

In what ratio must a shopkeeper mix two varieties of rice costing ₹75 and ₹80 per kg, respectively, so as to get a mixture worth ₹76.5 per kg?

A. 7 : 3

B. 5 : 3

C. 3 : 7

D. 3 : 5

Q34 concentration mixing

How many litres of milk with 24% concentration are to be mixed with 18 litres with 72% concentration to get a mixture with 36% concentration?

A. 56

B. 54

C. 48

D. 52

Q35 ratio mixture add water

The ratio of milk and water in a 30 litre mixture is 3 : 2. Find the quantity of water to be added to the mixture in order to make this ratio 1:1.

A. 7

B. 2

C. 9

D. 6

Q36 water in milk

A milkman professes to sell his milk at cost price but he mixes it with water and thereby gains 40%. Find the percentage of water in the mixture (rounded to one decimal place).

A. 27%

B. 28.6%

C. 27.5%

D. 28%



Q37 Add water milk

$$10\frac{2}{3}$$

A. 7 litres

B. 8 litres

C. 9 litres

D. 15 litres



Blackbook Vocabulary — Now in the App!

► Download Now on Google Play

generated by rank.qmaths.in

Q1 Depreciation rate

Lata buys a second-hand scooty for ₹30,000. The value of the scooty depreciates at the rate of $x\%$ yearly. If the scooty was sold at a price of ₹20,667 after 2 years, then what is the value of x ?

A. 18

B. 16

C. 19

D. 17 ✓

Q2 Election votes

In an election between two candidates 90 % of the registered voters cast their vote and 15 % of the votes polled were found invalid. Winning candidate got 51% of the valid votes and won the election by a margin of 2142 votes. How many voters were registered?

A. 140000 ✓

B. 140001

C. 139999

D. 140002

Q3 Expenditure change

The tax on petrol is increased by 5%, but its consumption is decreased by 5%. The increase or decrease in the expenditure of money is:

A. No change

B. 0.25% increase

C. 5% increase

D. 0.25% decrease ✓

Q4 Number percent equation

If 25% of a number is added to 78, then the result is the same number. 80% of the same number is:

A. 113.2

B. 103.2

C. 53.2

D. 83.2 ✓

Q5 Percent of percent

2% of 7% of a number is what percentage of that number?

A. 0.014

B. 9

C. 14

D. 0.14 ✓

Q6 Percent of percent

1% of 93% of a number is what percentage of that number?

A. 0.093

B. 94

C. 0.93 ✓

D. 93

Q7 Percentage decrease

A shirt was originally priced at ₹ 600. It is now on sale for ₹ 540. What is the percentage decrease in the price?

A. 25%

B. 15%

C. 20%

D. 10% ✓

Q8 Percentage empty tank

After 57 litres of petrol was poured into an empty storage tank, it was still 1% empty. How much petrol (in litres, rounded off to two decimal place) must be poured into the storage tank in order to fill it?

A. 58.58

B. 57.58 ✓

C. 56.58

D. 58



Q9 Percentage empty tank

After 59 litres of petrol was poured into an empty storage tank, it was still 1% empty. How much petrol must be poured (in litres, rounded off to one decimal place) into the storage tank in order to fill it?

A. 59.6



B. 60

C. 58.6

D. 60.6

Q10 Percentage empty tank

After 56 litres of petrol was poured into an empty storage tank, it was still 10% empty. How much petrol (in litres, rounded off to two decimal place) must be poured into the storage tank in order to fill it?

A. 61.22

B. 62.22



C. 57

D. 63.22

Q11 Percentage empty tank

After 58 litres of petrol was poured into an empty storage tank, it was still 1% empty. How much petrol (in litres, rounded off to two decimal place) must be poured into the storage tank in order to fill it?

A. 57.59

B. 59.59

C. 59

D. 58.59

**Q12 Percentage increase**

The monthly income of a person is ₹7,540. If their income is increased by 20%, then what will be their new monthly income?

A. ₹9,248

B. ₹9,448

C. ₹9,048



D. ₹9,648

Q13 Percentage increase

Ramesh's luggage bag initially weighed 15 kg when he started his tour. By the time of his departure, the weight of his bag had increased to 18 kg. Calculate the percentage increase in the weight of the luggage.

A. 60%

B. 20%



C. 120%

D. 90%

Q14 Percentage increase

The price of a car was ₹7,50,000 last year. The price increased by 15% this year. What is the price of the car this year?

A. ₹8,50,500

B. ₹8,62,500



C. ₹7,75,500

D. ₹9,02,500

Q15 Percentage increase

The population of a town is increased from 60,000 to 61,050. How much is the percentage increase?

A. 1.75%



B. 1.55%

C. 1.65%

D. 1.85%

Q16 Percentage increase

A student's marks in an exam increased from 72 to 90. What is the percentage increase in the student's marks?

A. 20%

B. 25%



C. 15%

D. 10%

Q17 Percentage increase

There are 380 members in a club; 25% more persons joined the club. What is the new strength of the club?

A. 475



B. 450

C. 405

D. 425



Q18 Percentage increase

The present cost of a apartment is ₹152629. After a year, its cost increased to ₹186783. The percentage increase (rounded off to the nearest integer) in the cost of the apartment is:

A. 26

B. 22



C. 19

D. 18

Q19 Percentage increase

There is 2600 ml oil in a bottle. If the quantity of oil is increased by 22%, the bottle is completely filled. Find the capacity of the bottle.

A. 3096 ml

B. 3136 ml

C. 3172 ml



D. 3000 ml

Q20 Percentage increase

The present cost of a house is ₹155120. After a year, its cost increased to ₹197932. The percentage increase (rounded off to the nearest integer) in the cost of the house is:

A. 25

B. 23

C. 28



D. 26

Q21 Percentage increase

If the price of an item increased from ₹3,135 to ₹4,389, what is the percentage change?

A. 20% increase

B. 40% decrease

C. 40% increase



D. 25% increase

Q22 Percentage increase

The present cost of a shopping complex is ₹124645. After a year, its cost increased to ₹141449. The percentage increase (rounded off to the nearest integer) in the cost of the shopping complex is:

A. 12

B. 9

C. 13



D. 18

Q23 Percentage increase

The population of Pune in 2023 and 2024 was 71,66,000 and 73,45,850, respectively. What was the percentage increase in the population from 2023 to 2024? (Rounded off to one decimal place)

A. 1.8%

B. 2.5%



C. 4%

D. 9.8%

Q24 Percentage increase

The cost of a television set rose from ₹16,000 to ₹19,200. Find the percentage increase.

A. 16.67%

B. 22.67%

C. 24%

D. 20%

**Q25 Percentage increase price**

The price of an item is increased by ₹25 and in percentage, its price is increased by 10%. The price of the item now is ₹_____.

A. 200

B. 275



C. 225

D. 250

Q26 Percentage more than

20% of a number is more than 20% of 530 by 170. The number is:

A. 1380



B. 1480

C. 1430

D. 1230

Q27 Percentage of capacity

After 63 litres of petrol was poured into an empty storage tank, it was still 10% empty. How much petrol (in litres) must be poured into the storage tank in order to fill it?

A. 71

B. 69

C. 64

D. 70



Q28 Percentage of capacity

After 58 litres of petrol was poured into an empty storage tank, it was still 10% empty. How much petrol (in litres, rounded off to two decimal place) must be poured into the storage tank in order to fill it?

A. 63.44

B. 64.44 ✓

C. 59

D. 65.44

Q29 Percentage of capacity

After 62 litres of petrol was poured into an empty storage tank, it was still 10% empty. How much petrol (in litres, rounded off to two decimal place) must be poured into the storage tank in order to fill it?

A. 67.89

B. 69.89

C. 63

D. 68.89 ✓

Q30 Percentage of number

If 35% of k is 15 less than 3600% of 15, then k is:

A. 1540

B. 1460

C. 1500 ✓

D. 1480

Q31 Percentage of number

If 35% of k is 20 less than 3000% of 10, then k is:

A. 760

B. 840

C. 800 ✓

D. 780

Q32 Percentage of number

If 40% of k is 10 less than 2400% of 15, then k is:

A. 915

B. 855

C. 835

D. 875 ✓

Q33 Percentage of number

If 35% of k is 20 less than 1200% of 25, then k is:

A. 840

B. 800 ✓

C. 760

D. 780

Q34 Percentage of percentage

2% of 13% of a number is what percentage of that number?

A. 15

B. 26

C. 0.26 ✓

D. 0.026

Q35 Percentage of percentage

1% of 97% of a number is what percentage of that number?

A. 98

B. 0.097

C. 97

D. 0.97 ✓

Q36 Percentage of percentage

1% of 96% of a number is what percentage of that number?

A. 0.096

B. 97

C. 0.96 ✓

D. 96

Q37 Percentage of percentage

2% of 4% of a number is what percentage of that number?

A. 8

B. 6

C. 0.08 ✓

D. 0.008

Q38 Percentage of percentage

1% of 95% of a number is what percentage of that number?

A. 0.95 ✓

B. 95

C. 96

D. 0.095



Q39 Percentage of value

If 40% of k is 10 less than 2400% of 10, then k is:

- A. 615
- B. 535
- C. 555
- D. 575

**Q40 Percentage of value**

If 40% of k is 10 less than 1200% of 10, then k is:

- A. 235
- B. 275
- C. 315
- D. 255

**Q41 Percentage reverse**

A number when increased by 40 %, gives 3990. The number is:

- A. 5700
- B. 2850
- C. 8550
- D. 1425

**Q42 Percentage reverse**

A number when increased by 40 %, gives 3570. The number is:

- A. 5100
- B. 1275
- C. 2550
- D. 7650

**Q43 Percentage reverse**

A number when increased by 50 %, gives 2520. The number is:

- A. 5040
- B. 3360
- C. 1680
- D. 840

**Q44 Percentage reverse**

A number when increased by 40 %, gives 3360. The number is:

- A. 4800
- B. 2400
- C. 7200
- D. 1200

**Q45 Percentage unknown**

65% of 240 + ?% of 150 = 201

- A. 40
- B. 35
- C. 25
- D. 30

**Q46 Population decrease reverse**

The population of a small city decreased every year due to water contamination. The present population of the town is 1,39,650. Last year, the migration was 2%, and the year before last, it was 5%. What was the population of the city two years ago?

- A. 1,15,000
- B. 1,25,000
- C. 1,45,000
- D. 1,50,000

**Q47 Price consumption expenditure**

The price of edible oil is increased by 30%. To maintain the budget, Reena reduces the consumption of this oil by 18%. Find the increased percentage in expenditure due to this edible oil.

- A. 6.3%
- B. 6.9%
- C. 6.1%
- D. 6.6%

**Q48 Reverse percentage increase**

A number when increased by 40 %, gives 3290. The number is:

- A. 4700
- B. 7050
- C. 2350
- D. 1175



Q49 Reverse percentage increase

A number when increased by 40 %, gives 3920. The number is:

- A. 1400
- B. 8400
- C. 5600
- D. 2800

**Q50 Reverse percentage increase**

Deepak was given an increment of 12% on his salary. His new salary is ₹76,720. What was his salary before the increment?

- A. ₹69,000
- B. ₹68,500
- C. ₹69,300
- D. ₹68,850

**Q51 Reverse percentage increase**

A number when increased by 50 %, gives 2610. The number is:

- A. 3480
- B. 5220
- C. 870
- D. 1740

**Q52 Reverse percentage increase**

The number of students in a school increases every year by 5%. If the number of the students in 2023 is 5,670, what was the number of students in 2022?

- A. 5,230
- B. 5,430
- C. 5,400
- D. 5,330

**Q53 Reverse percentage increase**

A number when increased by 50 %, gives 2400. The number is:

- A. 800
- B. 3200
- C. 4800
- D. 1600

**Q54 Reverse percentage increase**

A number when increased by 40 %, gives 3780. The number is:

- A. 8100
- B. 2700
- C. 5400
- D. 1350

**Q55 Reverse percentage increase**

Gursimar was given an increment of 15% on her salary. If her new salary is ₹84,180, what was her salary before the increment?

- A. ₹72,750
- B. ₹72,300
- C. ₹73,050
- D. ₹73,200

**Q56 Successive percentage change**

Arun's salary is increased by 20% in January and his salary is again increased by 35% in the month of November. What is the overall percentage increase in his salary?

- A. 55%
- B. 60%
- C. 65%
- D. 62%

**Q57 Successive percentage change**

The price of an item is initially increased by 20%, and then the new price is decreased by 10%. What is the overall percentage change in the price?

- A. 8% increase
- B. 6% increase
- C. 6% decrease
- D. 8% decrease

**Q58 Successive percentage change**

The price of milk was increased by 15% last year and this year, there is again an increment of 12% in the price. Two years ago, the price was ₹60, now the price of the milk is ₹_____.

- A. 78.72
- B. 77.28
- C. 77.82
- D. 78.27



Q59 Successive percentage change

A number, 45000, is increased successively by 20% and 25%. Find the overall increase in percentage.

- A. 47.5%
- B. 22.5%
- C. 45%
- D. 50%

**Q60 area percent increase**

If the side length of a square increases from 5 cm to 7 cm, find the percentage increase in its area.

- A. 80%
- B. 86%
- C. 96%
- D. 90%

**Q61 area percent increase**

The base of a parallelogram is increased by 8% and height is increased by 4%. Find the net increase percentage in its area.

- A. 12.05%
- B. 12.22%
- C. 12.32%
- D. 12.48%

**Q62 find number**

A number when increased by 50 %, gives 2490. The number is:

- A. 3320
- B. 4980
- C. 1660
- D. 830

**Q63 find number**

A number when increased by 50 % gives 2550. The number is:

- A. 5100
- B. 1700
- C. 3400
- D. 850

**Q64 find number**

A number when increased by 40 %', gives 3710. The number is:

- A. 1325
- B. 5300
- C. 7950
- D. 2650

**Q65 find number**

A number when increased by 50 %', gives 2580. The number is:

- A. 1720
- B. 860
- C. 5160
- D. 3440

**Q66 find number**

A number when increased by 50 %', gives 2430. The number is:

- A. 3240
- B. 4860
- C. 810
- D. 1620

**Q67 find number**

A number when increased by 40 %', gives 3500. The number is:

- A. 5000
- B. 2500
- C. 1250
- D. 7500

**Q68 net percent change**

A number is first increased by 12%, and the increased number is decreased by 8%. Find the net increase or decrease percentage.

- A. 3.04% increase
- B. 2.08% increase
- C. 2.08% decrease
- D. 3.04% decrease



Q69 net revenue change

When the price of a portable hard disk is reduced by 24%, its sale increases by 35%. What is the net percentage change in the total revenue?

- A. 6.2% decrease
- B. 2.6% decrease
- C. 6.2% increase
- D. 2.6% increase

**Q70** number percent equation

If 25% of a number is added to 60, then the result is the same number. 80% of the same number is:

- A. 34
- B. 64
- C. 94
- D. 84

**Q71** number percent equation

If 40% of k is 10 less than 1800% of 10, then k is:

- A. 385
- B. 405
- C. 465
- D. 425

**Q72** number percent equation

If 25% of a number is added to 78, then the result is the same number. 75% of the same number is:

- A. 78
- B. 48
- C. 98
- D. 108

**Q73** percent difference number

The difference between a number increased by 17% and the same number decreased by 18% is 28. Find the number.

- A. 0.8
- B. 4.76
- C. 80
- D. 476

**Q74** percent of amount

If an electricity bill is paid before the due date, one gets a reduction of 5% on the amount of the bill. By paying the bill before the due date, a person got a reduction of ₹14. The amount of his electricity bill was:

- A. ₹250
- B. ₹270
- C. ₹260
- D. ₹280

**Q75** percent of percent

2% of 5% of a number is what percentage of that number?

- A. 0.01
- B. 10
- C. 7
- D. 0.1

**Q76** percent of percent

2% of 14% of a number is what percentage of that number?

- A. 28
- B. 0.028
- C. 16
- D. 0.28

**Q77** percent of percent

2% of 11% of a number is what percentage of that number?

- A. 13
- B. 22
- C. 0.022
- D. 0.22

**Q78** percent of percent

2% of 9% of a number is what percentage of that number?

- A. 18
- B. 0.018
- C. 0.18
- D. 11



Q79 percentage change

The current price of a laptop is ₹78,000 after a 20% increase this year. What was the price of the laptop last year?

A. ₹65,000



B. ₹64,200

C. ₹65,450

D. ₹62,400

Q80 percentage change

After a 20% hike, the cost of a dining cloth is ₹1,740. What was the original price of the cloth?

A. ₹1,530

B. ₹1,500

C. ₹1,410

D. ₹1,450

**Q81 percentage decrease**

The price of a TV was ₹55,000 last year, and this year it is ₹42,500. Find the percentage decrease in price. (Rounded up to two decimal places)

A. 22.73%



B. 15.50%

C. 25.42%

D. 72.23%

Q82 percentage of quantity

After 63 litres of petrol was poured into an empty storage tank, it was still 1% empty. How much petrol (in litres, rounded off to two decimal place) must be poured into the storage tank in order to fill it?

A. 64.64

B. 63.64



C. 62.64

D. 64

Q83 percentage of quantity

After 62 litres of petrol was poured into an empty storage tank, it was still 1% empty. How much petrol (in litres, rounded off to two decimal place) must be poured into the storage tank in order to fill it?

A. 63.63

B. 63

C. 61.63

D. 62.63

**Q84 percentage of quantity**

After 60 litres of petrol was poured into an empty storage tank, it was still 10% empty. How much petrol (in litres, rounded off to two decimal place) must be poured into the storage tank in order to fill it?

A. 65.67

B. 67.67

C. 61

D. 66.67

**Q85 population growth**

The population of a town increases by 16% each year. If the population at the beginning of this year is 18,750, what will the population be at the end of next year?

A. 19,230

B. 24,750

C. 21,750

D. 25,230

**Q86 population growth**

The population of a city increases 11% annually. Find the net percentage increase in two years.

A. 21.32%

B. 21.23%

C. 23.21%



D. 23.12%

Q87 population growth

The population of a village increases at the rate of 25 per thousand annually. If the present population is 84050, what was the population two years ago?

A. 81,200

B. 81,000

C. 80,000



D. 82,000

Q88 successive percent change

During the first year, the number of students in class X of a school increased by 12% and during the second year, it reduced by 9%. At the end of the second year, the number of students was 1274. What was the number of students in class X at the beginning of the first year?

A. 1230

B. 1250



C. 1220

D. 1240



Q89 Percentage increase

Suppose oil prices increased from ₹99 per litre to ₹132 per litre. The increase percentage of oil prices is:

- A. 32.5%
- B. 34%
- C. 32%
- D. $33\frac{1}{3}\%$ ✓

Q90 Successive percentage change

The price of an article was increased by $x\%$. Later the new price was decreased by $x\%$. If the latest price was ₹1, then what was the original price of the article?

- A. $\frac{(1-x)}{100}$
- B. $\frac{\sqrt{(1-x)}}{10}$
- C. ₹100
- D. $\frac{10000}{(100-x)(100+x)}$ ✓

Q91 Successive percentage change

A number is increased by 30% and then decreased by 30%. Find the net change (in per cent) in the number.

- A. 9% decrease
- B. 9% increase ✓
- C. 10% increase
- D. 10% decrease

Q92 successive percentage increase

A number 30000 is increased successively by 10%, 20% and 30%. Find the overall increase in percentage.

- A. 65.6%
- B. 61.6%
- C. 71.6% ✓
- D. 75.6%



Arithmetic

37 Questions • Answer Key

Q1 Fill and empty

A pipe can fill a tank in 9 hours. Another pipe can empty the filled tank in 36 hours. If both the pipes are opened simultaneously, then the time (in hours) in which the tank will be two-third filled, is:

A. 32

B. 8

C. 16

D. 24

Q2 Fill and empty

A tap can fill a cistern in 24 minutes and another tap can empty it in 36 minutes. If both the taps are open, the time taken to fill the tank will be:

A. 24 minutes

B. 48 minutes

C. 60 minutes

D. 72 minutes

Q3 Fill and empty

A pipe can fill a tank in 6 hours. Another pipe can empty the filled tank in 12 hours. If both the pipes are opened simultaneously, then the time (in hours) in which the tank will be two-third filled, is:

A. 8

B. 24

C. 16

D. 32

Q4 Fill and empty

A pipe can fill a tank in 8 hours. Another pipe can empty the filled tank in 72 hours. If both the pipes are opened simultaneously, then the time (in hours) in which the tank will be two-third filled, is:

A. 12

B. 18

C. 6

D. 24

Q5 Fill and empty pipes

A pipe can fill a tank in 7 hours. Another pipe can empty the filled tank in 21 hours. If both the pipes are opened simultaneously, then the time (in hours) in which the tank will be two-third filled, is:

A. 7

B. 14

C. 21

D. 28

Q6 Fill and empty pipes

A pipe can fill a tank in 7 hours. Another pipe can empty the filled tank in 9 hours. If both the pipes are opened simultaneously, then the time (in hours) in which the tank will be two-third filled, is:

A. 42

B. 63

C. 21

D. 84

Q7 Leak in tank

A pipe can fill a tank in 10 hours. Due to a leak in the bottom, it fills the tank in 22.5 hours. If the tank is full, then how much time will the leak take to empty it?

A. 19 hours

B. 17 hours

C. 18 hours

D. 16 hours

Q8 Leak in tank

A pipe can fill a cistern in 3 hours. Due to a leak at the bottom, it is filled in 5 hours. When the cistern is full, in how much time will it be emptied by the leak?

A. 7.5 hours

B. 6 hours

C. 8.5 hours

D. 10 hours



Q9 Pipe turned off

Pipes A and B can fill an empty cistern in 78 minutes and 39 minutes, respectively. Both Pipe A and Pipe B are opened together. After how much time should Pipe A be turned off so that the empty cistern is completely filled in a total of 25 minutes?

A. 38 min

B. 28 min



C. 45 min

D. 35 min

Q10 Pipe turned off

Pipes A and B can fill an empty cistern in 72 minutes and 51 minutes, respectively. Both Pipe A and Pipe B are opened together. After how much time should Pipe A be turned off so that the empty cistern is completely filled in a total of 34 minutes?

A. 20 min

B. 35 min

C. 30 min

D. 24 min

**Q11 Pipe turned off**

Pipes A and B can fill an empty cistern in 78 minutes and 24 minutes, respectively. Both Pipe A and Pipe B are opened together. After how much time should Pipe A be turned off so that the empty cistern is completely filled in a total of 20 minutes?

A. 25 min

B. 16 min

C. 13 min



D. 10 min

Q12 Pipe turned off

Pipes A and B can fill an empty cistern in 13 minutes and 39 minutes, respectively. Both Pipe A and Pipe B are opened together. After how much time should Pipe A be turned off so that the empty cistern is completely filled in a total of 27 minutes?

A. 4 min



B. 10 min

C. 5 min

D. 7 min

Q13 Pipe turned off

Pipes A and B can fill an empty cistern in 86 minutes and 43 minutes, respectively. Both Pipe A and Pipe B are opened together. After how much time should Pipe A be turned off so that the empty cistern is completely filled in a total of 42 minutes?

A. 2 min



B. 5 min

C. 15 min

D. 20 min

Q14 Pipe turned off

Pipes A and B can fill an empty cistern in 52 minutes and 65 minutes, respectively. Both Pipe A and Pipe B are opened together. After how much time should Pipe A be turned off so that the empty cistern is completely filled in a total of 60 minutes?

A. 4 min



B. 20 min

C. 5 min

D. 15 min

Q15 Pipe turned off

Two pipes A and B can fill a tank in 24 minutes and 32 minutes, respectively. Both the pipes are opened together, but after 8 minutes pipe A is turned off. What is the total time required to fill the tank?

A. 29 min 20 sec



B. 10 min 40 sec

C. 24 min 36 sec

D. 20 min 29 sec

Q16 Pipes added midway

A tap can fill a tank in 8 hours. After half the tank is filled, four more similar taps are opened. What is the total time taken to fill the tank completely?

A. 5 hours, 30 min

B. 4 hours, 48 min



C. 4 hours, 40 min

D. 3 hours, 30 min



Q17 Three pipes tank

Three pipes, A, B and C, together can fill a tank in 8 hours. After working together for 2 hours, C is closed, and A and B can fill the remaining part in 9 hours. Find the time taken by C to fill the empty tank alone.

A. 16 hours

B. 20 hours

C. 24 hours



D. 12 hours

Q18 Two pipes speed ratio

A tank is filled in 20 hours by two pipes, A and C. Pipe C is thrice as fast as Pipe A. How much time will Pipe A alone take to fill the tank?

A. 80 hours



B. 75 hours

C. 100 hours

D. 84 hours

Q19 Two pipes together

A pipe A can fill a cistern in 12 hours, while pipe B can fill it in 8 hours. In how much time will the cistern be filled, if both pipes A and B are opened together?

A. 4 hours 48 minutes



B. 3 hours 54 minutes

C. 4 hours 12 minutes

D. 3 hours 26 minutes

Q20 Two pipes together

Two pipes can fill a cistern separately in 40 minutes and 60 minutes, respectively. They can together fill the cistern in:

A. 20 minutes

B. 23 minutes

C. 25 minutes

D. 24 minutes

**Q21 pipe and leak**

A pipe can fill a tank in 6 hours. Another pipe can empty the filled tank in 30 hours. If both the pipes are opened simultaneously, then the time (in hours) in which the tank will be two-third filled, is:

A. 5



B. 20

C. 10

D. 15

Q22 pipe and leak

A pipe can fill a tank in 9 hours. Another pipe can empty the filled tank in 27 hours. If both the pipes are opened simultaneously, then the time (in hours) in which the tank will be two-third filled, is:

A. 9



B. 18

C. 36

D. 27

Q23 pipe and leak

A pipe can fill a tank in 9 hours. Another pipe can empty the filled tank in 63 hours. If both the pipes are opened simultaneously, then the time (in hours) in which the tank will be two-third filled, is:

A. 28

B. 14

C. 21

D. 7

**Q24 pipe and leak**

A pipe can fill a tank in 9 hours. Another pipe can empty the filled tank in 12 hours. If both the pipes are opened simultaneously, then the time (in hours) in which the tank will be two-third filled, is:

A. 48

B. 24



C. 96

D. 72

Q25 pipes alternately

Two inlet pipes A and B can fill a cistern in 30 minutes and 36 minutes, respectively. Initially, only A is opened for 10 minutes. After 10 minutes, A is closed and B is opened. In how much time (in minutes) will the inlet pipe B fill the remaining part of the cistern?

A. 20

B. 24



C. 22

D. 26



Q26 pipes fill time

One pipe fills a water tank 3 times faster than the other. If the two pipes together can fill the empty tank in 37 minutes, then how much time will the slower pipe alone take to fill the tank?

A. 150 minutes

B. 148 minutes

C. 145 minutes

D. 154 minutes

Q27 tap and outlet

A cistern can be filled by a tap in 6 hours and emptied by an outlet pipe in 7.5 hours. How long will it take to fill the cistern if both the tap and the pipe are opened together?

A. 24 hours

B. 30 hours

C. 27 hours

D. 25 hours

Q28 two pipes together

A pipe can fill a tank in 6 hours, and another pipe can fill the same tank in 8 hours. If both pipes are opened at the same time, how long (in hours, rounded off to one decimal place) will it take to fill the tank?

A. 3.4 hours

B. 4 hours

C. 5 hours

D. 2.5 hours

Q29 two pipes together

Two pipes, A and B, can fill the tank in 60 hours and 90 hours, respectively. If both the pipes are opened simultaneously, in how many hours will 75% of the tank be filled?

A. 27

B. 30

C. 33

D. 36

Q30 Fill and empty pipes

If a pipe can fill a tank in 5 hours and another pipe can empty the tank in 8 hours, then what part of the tank will be filled by both pipes in 1 hour, if both pipes are open simultaneously?

A. $\frac{3}{20}$ part

B. $\frac{3}{40}$ part

C. $\frac{1}{40}$ part

D. $\frac{1}{10}$ part

Q31 Fill and empty pipes

Pipe A can fill a tank in 5 hours. Pipe B can empty it in 12 hours. If both the pipes are opened simultaneously, how much time will it take to fill the tank?

A. $8\frac{2}{7}$ hours

B. $8\frac{4}{7}$ hours

C. $8\frac{1}{7}$ hours

D. $8\frac{3}{7}$ hours



Q32 Leak in tank

An electric pump can fill a tank in 6 hours. Due to a leakage in the tank, it takes $7\frac{1}{5}$ hours to fill the tank. How much time will this leak take to empty the full tank if water does not get in or out of the tank through any other point during this period?

- A. 18 hrs
- B. 38 hrs
- C. 36 hrs
- D. 17 hrs

**Q33 Leak in tank**

An electric pump can fill a tank in 5 hours. Due to a leakage in the tank, it takes $6\frac{1}{4}$ hours to fill the tank. How much time will this leak take to empty the full tank if water does not get in or out of the tank through any other point during this period?

- A. 25 hrs
- B. 43 hrs
- C. 33 hrs
- D. 11 hrs

**Q34 Pipe turned off**

Pipe P can fill $\frac{5}{9}$ part of a tank in 25 hours and pipe Q can fill $\frac{8}{9}$ part of the same tank in 24 hours. Both P and Q were kept open for 3 hours, then both were closed. Pipe R alone was then opened and it emptied the water in the tank in 8 hours. Pipes P, Q and R together can fill the empty tank in:

- A. 28 hours
- B. 23 hours
- C. 27 hours
- D. 44 hours

**Q35 Pipes work hours**

Pipe P can fill $\frac{4}{9}$ part of a tank in 28 hours and pipe Q can fill $\frac{3}{5}$ part of the same tank in 27 hours. Both P and Q were kept open for 3 hours, then both were closed. Pipe R alone was then opened and it emptied the water in the tank in 8 hours. Pipes P, Q and R together can fill the empty tank in:

- A. 42 hours
- B. 57 hours
- C. 40 hours
- D. 51 hours

**Q36 Three taps cistern**

Three taps P, Q and R can together fill an empty cistern in 12 minutes. Tap P alone can fill the cistern in 36 minutes, and tap Q alone can fill it in 42 minutes. How long will tap R alone take to fill the cistern?

- A. $29\frac{1}{3}$
- B. 30 minutes
- C. $31\frac{1}{2}$
- D. 28 minutes



Q37 pipes partial open

Two pipes A and C can fill a tank in 10 hours and 15 hours respectively. If A is open all the time and C is open for 30 minutes, then find the time needed for the tank to be filled.

A. $8\frac{4}{3}$ hours

B. $8\frac{2}{3}$ hours

C. $9\frac{2}{3}$ hours



D. $9\frac{1}{3}$ hours



Blackbook Vocabulary — Now in the App!

▶ Download Now on Google Play

Arithmetic

139 Questions • Answer Key

Q1 CP from profit

To make a profit of 27%, the selling price of an item is ₹381. The cost price of the item is:

- A. ₹313
- B. ₹327
- C. ₹300
- D. ₹354



Q2 CP percent of SP

If the cost price is 72% of the selling price, what is the profit percentage (approximately)?

- A. 61.2%
- B. 38.8%
- C. 28%
- D. 14.4%



Q3 Change discount profit

With a discount of 10% on the marked price, on selling an item, 20% profit is earned. What should be the percentage discount on the marked price to earn 10% profit?

- A. 17.5%
- B. 20%
- C. 18.5%
- D. 15%



Q4 Compare discounts

Which of the following will yield maximum discount on ₹34,480?

- A) 2 successive discounts of 7% and 3%
- B) 2 successive discounts of 8% and 2%
- C) Single discount of 9.8%

- A. A
- B. C
- C. B
- D. C and B will yield equal discount.



Q5 Compare discounts

In a sale, a trader offers several discount schemes. Choose a scheme that provides the highest discount from the following options.

- A. A single discount of 20%
- B. Two successive discounts of 10% each
- C. Two successive discounts of 8% and 12%
- D. Two successive discounts of 10% and 11%



Q6 Cost price expenses

Saritha purchased a pre-owned sewing machine for ₹34,999 and spent ₹4,000 on repairs and ₹1,000 on transport. She sold it with 15% profit. At what price did she sell the machine?

- A. ₹45,998.85
- B. ₹42,999.85
- C. ₹40,000.85
- D. ₹59,845.85



Q7 Cost price expenses

A retailer buys an electronic item for ₹175. His overhead expenses are ₹25. He sells the electronic item for ₹320 and makes x% profit. The value of x is:

- A. 40
- B. 50
- C. 80
- D. 60



Q8 Cost price expenses

A retailer buys an electronic item for ₹175. His overhead expenses are ₹25. He sells the electronic item for ₹340 and makes x% profit. The value of x is:

- A. 50
- B. 70
- C. 90
- D. 60



Q9 Cost price expenses

A retailer buys an electronic item for ₹175. His overhead expenses are ₹5. He sells the electronic item for ₹360 and makes $x\%$ profit. The value of x is:

A. 100



B. 80

C. 120

D. 90

Q10 Cost price marked articles

The cost price of 30 articles is the same as the marked price of x articles. If the profit is 20%, then find the value of x .

A. 35

B. 30

C. 25



D. 20

Q11 Cost selling articles

If a shopkeeper bears 25% loss, then which of the following statements is/are correct?

Statement A: The cost price of 15 articles is equal to the selling price of 20 articles.

Statement B: The cost price of 12 articles is equal to the selling price of 17 articles.

A. Only Statement B is correct.

B. Neither Statement A nor B is correct.

C. Only Statement A is correct.



D. Both Statements A and B are correct.

Q12 Cost selling price articles

The cost price of 12 tables is equal to the selling price of 15 tables. What is the loss percent?

A. 12%

B. 15%

C. 20%



D. 10%

Q13 Discount amount

The marked price of a pair of shoes is ₹2,500. A discount of 16% is offered. What is the amount of discount?

A. ₹350

B. ₹450

C. ₹400



D. ₹300

Q14 Discount free articles

A trader offers a 10% discount on the marked price and provides 3 articles free for every 12 articles purchased, thereby earning a profit of 20%. Find the percentage by which the marked price is increased above the cost price, correct to two decimal places.

A. 61.25%

B. 62.36%

C. 66.67%



D. 65.86%

Q15 Discount loss profit

A merchant offers a discount of 20% on the list price, due to which she makes a loss of 15%. What percentage profit or percentage loss will she make if she sells at a discount of 4% of the list price?

A. 5%, Loss

B. 5%, Profit

C. 2%, Loss

D. 2%, Profit

**Q16 Discount markup**

If a vendor offers a discount of 20% on the marked price of his goods and thus ends up selling at 120% of the cost price, what was the percentage markup?

A. 40%

B. 45%

C. 50%



D. 55%

Q17 Discount on marked price

The marked price of a watch is ₹6,420, available at a discount of 17%. Find the amount paid by the customer when he purchased the watch.

A. ₹5,425.25

B. ₹5,368.78

C. ₹5,328.60



D. ₹5,248.85



Q18 Discount percentage

The marked price of a refrigerator is ₹47,500. During off season, it is sold for ₹41,800. Determine the discount percentage.

- A. 9%
- B. 12% ✓
- C. 10.5%
- D. 11%

Q19 Discount percentage

The marked price of an Ajrakh saree is ₹3,600. During the festive season sale, it is sold for ₹3,150. Determine the discount percentage.

- A. 12.5% ✓
- B. 11%
- C. 10%
- D. 13.5%

Q20 Discount percentage

In a general store, the marked price of a pack of 5 kg wheat flour is ₹220. The general store owner sells it at ₹200. What is the percentage of discount given by the general store owner? (Correct up to two decimal places)

- A. 8.08%
- B. 9.09% ✓
- C. 8.98%
- D. 9.99%

Q21 Discount price

A chair is listed at ₹600 and a discount of 8% is given. The selling price is:

- A. ₹584
- B. ₹592
- C. ₹600
- D. ₹552 ✓

Q22 Discount price

The marked price of a juicer is ₹7,500. The store offers a 15% discount. What is the price (in ₹) after the discount?

- A. 6,735
- B. 6,335
- C. 6,357
- D. 6,375 ✓

Q23 Discount profit loss

A merchant offers a discount of 25% on the list price, due to which she makes a loss of 13%. What percent profit or percent loss will she make if she sells at a discount of 10% of the list price?

- A. 4.8% Profit
- B. 4.4% Loss
- C. 4.4% Profit ✓
- D. 4.8% Loss

Q24 Discount schemes comparison

A trader offers several discount schemes. Choose the scheme that provides the lowest selling price from the following options.

- A. Buy one, get one free
- B. Buy one, get three free ✓
- C. A single discount of 72%
- D. Buy two, get five free

Q25 Free articles discount

Find the effective discount for the scheme: Buy 3, get 2 free.

- A. 20%
- B. 40% ✓
- C. 30%
- D. 60%

Q26 Free articles discount

Aman offers a discount scheme, such that on buying 12 rough copies, get x rough copies for free. If the equivalent percentage discount is 25%, then what is the value of x?

- A. 6
- B. 3
- C. 5
- D. 4 ✓

Q27 Free articles discount

Under an offer at a saree shop, customers receive 3 sarees free with the purchase of 5 sarees. Find the discount available to the customers.

- A. 36.5%
- B. 34.5%
- C. 37.5% ✓
- D. 35.5%



Q28 Gain percent cloth

A merchant sells 120 metres of cloth and gains the selling price of 27 metres. Find the gain percentage (rounded off to the nearest integer).

A. 32%

B. 29% ✓

C. 26%

D. 30%

Q29 Loss percent

Calculate the loss percentage (correct up to two decimals) if Moni had a loss of ₹250 and her product was sold at ₹100.

A. 72.53%

B. 68.33%

C. 71.43% ✓

D. 67.23%

Q30 Loss percent

A person buys a bicycle for ₹12,000 and sells it for ₹10,500. Find the percentage loss.

A. 12%

B. 12.5% ✓

C. 16.5%

D. 14.5%

Q31 Loss percent

Mohan purchased a table for ₹2,025 and due to some scratches on its top, he had to sell it for ₹1,675. Find his loss percentage (correct to two places of decimals).

A. 16.85%

B. 17.91%

C. 17.28% ✓

D. 16.31%

Q32 Loss percentage

Asmita bought a saree for ₹4,800 and sold it for ₹4,200 after 1 year. Find her loss percentage.

A. 10.25%

B. 11.85%

C. 11%

D. 12.5% ✓

Q33 Loss percentage dozen

Sudhir purchased certain goods at the rate of ₹7,380 per dozen. He sold each one of them at the rate of ₹575. What was his percentage loss? (Round up to two decimal places)

A. 40%

B. 6.96%

C. 6.50% ✓

D. 23.12%

Q34 Loss selling price

Raju buys a mobile phone for ₹14,500 and sells it at a loss of 25%. What is the selling price of the mobile phone?

A. ₹12,500

B. ₹11,795

C. ₹13,250

D. ₹10,875 ✓

Q35 Loss to gain price

By selling an article for ₹115, a man loses 45%. At what price (in ₹) should he sell it to gain 32%?

A. 296

B. 286

C. 266

D. 276 ✓

Q36 Marked price discount

A shopkeeper offers a discount of 25% on the marked price of a mobile phone. If the shopkeeper still makes a profit of 10% after offering the discount, and the cost price of the phone is ₹12,000, What is the marked price of the phone?

A. ₹17,600 ✓

B. ₹18,600

C. ₹20,000

D. ₹18,000

Q37 Marked price discount

Harish, a dealer, purchases a microwave oven for ₹11,400. He allows a discount of 32% on its marked price and still gains 15%. What is the marked price (in ₹) of the microwave oven? (Round off to the nearest ₹)

A. 18,479

B. 17,299

C. 19,279 ✓

D. 19,499



Q38 Marked price discount

A dinner set is sold at ₹9,775 after giving a discount of 15%. What is the marked price of the dinner set?

A. ₹11,500



B. ₹10,500

C. ₹12,250

D. ₹13,250

Q39 Marked price discount

Pari marked a toy at 65% above the cost price of ₹6,580. If she offers a discount of 25% on the marked price and customer pays ₹P for the toy, the value of P is:

A. ₹8,000

B. ₹9,000

C. ₹7,966.50

D. ₹8,142.75

**Q40 Marked price discount**

A grocery item was sold for ₹660 with 25% discount on its marked price. What is the marked price?

A. ₹870

B. ₹890

C. ₹860

D. ₹880

**Q41 Marked price discount gain**

The cost price of an article is 64% of the marked price. Calculate the gain percentage after allowing a discount of 12%.

A. 32.5%

B. 37.5%



C. 47.2%

D. 45.7%

Q42 Marked price discount profit

If an item is sold at marked price, the percentage of profit is 50%. A discount of $x\%$ is offered on the marked price and the profit earned is $x\%$. The value of x is _____.

A. 27.5

B. 20



C. 25

D. 22.5

Q43 Marked price from discount

Rizwan bought a kurta-pajama set for ₹1,116 from a new year sale offering 28% off on all the purchases. What was the marked price (in ₹) on the kurta-pajama set?

A. 1,500

B. 1,525

C. 1,575

D. 1,550

**Q44 Marked price from profit**

A dealer purchased a washing machine for ₹15,700. He allows a discount of 16% on its marked price and still makes a profit of 20%. Find the marked price (nearest in ₹) of the washing machine.

A. ₹22,429



B. ₹22,942

C. ₹22,492

D. ₹22,249

Q45 Marked price gain

A trader marks his goods at 55% above the cost price and allows a discount of 20%. What is his gain percentage?

A. 24%



B. 25%

C. 34%

D. 35%

Q46 Marked price profit

A shopkeeper purchases a wrist watch for ₹3,800 and fixes its marked price in such a way that after allowing a discount of 24%, he earns a profit of 30%. Find the marked price of the wrist watch.

A. ₹6,500



B. ₹6,450

C. ₹6,400

D. ₹6,550



Q47 Marked price with making charges

The cost price (including making charges) of a necklace is ₹2,50,000, and Amit wants to make 15% profit by selling it. At the time of the sale, he declares a discount of 5% on the making charges of the necklace. If making charges are ₹20,000, what is the marked price of the necklace?

A. ₹2,87,500

B. ₹2,88,500 ✓

C. ₹2,77,500

D. ₹2,97,500

Q48 Markup discount profit

A merchant fixes the sale price of his goods at 90% above the cost price. He sells his goods at 18% discount. His percentage of profit is:

A. 55.8% ✓

B. 58.5%

C. 59.6%

D. 53.7%

Q49 Markup discount profit

Kartar marks his goods at 36% above the cost price and allows a discount of 16%. What is his gain percentage?

A. 13.6%

B. 13.24%

C. 14.24% ✓

D. 14.6%

Q50 Overall profit loss

A trader purchases a gadget for ₹2,000 and sells it at a profit of 25%. He then purchases a second gadget for ₹2,400 and sells it at a loss of 10%. What is the overall profit or loss (in ₹) from both transactions?

A. Profit, 180

B. Loss, 200

C. Profit, 260 ✓

D. Loss, 260

Q51 Overall profit percentage

Amit bought 50 pencils from a shopkeeper at a price of ₹3 per pencil, and then sold 15 pencils for ₹3.5 per pencil and the remaining at ₹2.5 per pencil. Calculate the percentage loss/profit that Amit had (rounded off to two decimal places).

A. Loss 6.67% ✓

B. Profit 3.27%

C. Profit 6.67%

D. Loss 3.27%

Q52 Overhead gain percentage

A dealer buys an article for ₹2,200 and sells it for ₹4,000. If his overhead charges are ₹300, then what is his gain percentage?

A. 65%

B. 60% ✓

C. 40%

D. 50%

Q53 Profit on cost

When an item is sold for ₹3,510, it earns 17% profit on the cost price. The cost price is _____.

A. ₹596

B. ₹2,914

C. ₹1,500

D. ₹3,000 ✓

Q54 Profit percent

A person buys a toy for ₹70 and sells it for ₹91. What will be his gain percentage?

A. 20%

B. 50%

C. 30% ✓

D. 40%

Q55 Profit percent

A merchant buys 150 books for ₹200 each and sells them at ₹250 each. Calculate the profit percentage.

A. 25% ✓

B. 15%

C. 25.5%

D. 35%



Q56 Profit percent

Mohan bought an article for ₹1,520 and sold it for ₹1,870. Find his profit percentage (correct to two places of decimals).

A. 21.36%

B. 22.78%

C. 23.03%



D. 20.15%

Q57 Profit percent selling price

On selling an item for ₹180, a shopkeeper earns 20% profit. To earn only a 5% profit, the selling price of the item should have been ₹_____.

A. 152.50

B. 155

C. 160

D. 157.50

**Q58 Profit percentage**

A retailer buys an electronic item for ₹175. His overhead expenses are ₹15. He sells the electronic item for ₹380 and makes x% 'profit. The value of x is:

A. 80

B. 90

C. 120

D. 100

**Q59 Profit percentage**

A shopkeeper buys a laptop for ₹30,000 and sells it for ₹35,000. Calculate the profit percentage (rounded off to 2 decimal places).

A. 16.67%



B. 15.67%

C. 14.67%

D. 17.67%

Q60 Profit percentage

A shopkeeper buys a watch for ₹2,000 and sells it for ₹2,400. What is the percentage of profit?

A. 25%

B. 16.67%

C. 22.67%

D. 20%

**Q61 Profit percentage**

Mayank buys a refurbished laptop for ₹22,500 and spends ₹1,000 on its repairs. If he sells it to his friend Mithun for ₹30,000, his gain percentage (rounded to two decimal places) will be:

A. 26.85%

B. 25%

C. 27.66%



D. 27%

Q62 Profit with overheads

A man buys an old scooter for ₹6,600 and spends ₹900 on its repairs. If he sells the scooter for ₹9,000, then what is his gain percentage?

A. 25%

B. 18%

C. 20%



D. 21%

Q63 Profit with overheads

A retailer buys an electronic item for ₹175. His overhead expenses are ₹25. He sells the electronic item for ₹400 and makes x% 'profit. The value of x is:

A. 90

B. 120

C. 80

D. 100

**Q64 Profit with repair**

Ramesh bought an old type writer for ₹4,800 and spent ₹700 on its repair. He sold it for ₹6,200. Find his profit percentage (corrected to two places of decimals).

A. 12.09%

B. 12.73%



C. 10.23%

D. 11.33%

Q65 Reverse discount price

On a 10% discount sale, an article costs ₹7,200. What was the original price of the article?

A. ₹7,800

B. ₹7,600

C. ₹7,400

D. ₹8,000



Q66 Same selling price profit loss

A person sells two laptops at ₹24,000 each. He gets 20% profit on the first laptop and incurs 20% loss on the other. What is the net percentage profit or loss?

- A. 4% Profit
- B. 4% Loss
- C. 2% Loss
- D. 2% Profit

**Q67 Selling price doubled profit**

An article is sold at a profit of 17%. If the selling price is doubled, the profit will be:

- A. 68%
- B. 134%
- C. 34%
- D. 200%

**Q68 Successive discount**

The marked price of an article is ₹5,800. A customer gets two successive discounts, the first being 12%. Calculate the second discount percentage if the customer pays ₹4,695.68 for it.

- A. 8%
- B. 7.5%
- C. 8.6%
- D. 7%

**Q69 Successive discount**

The single discount on some amount which is equivalent to successive discounts of 10%, 20% and 28% on the same amount is equal to:

- A. 38.16%
- B. 48.16%
- C. 50%
- D. 48.32%

**Q70 Successive discount**

A store marks the price of a pair of shoes at ₹1,200. During a sale, they offer a 10% discount, followed by an additional 5% discount on the new price. What is the final price of the shoes after both discounts?

- A. ₹1,026
- B. ₹1,020
- C. ₹1,030
- D. ₹1,014

**Q71 Successive discount**

Ali ordered an LED screen from an online portal. The online portal allows two successive discounts of 12.5% and 25% on the marked price. If payment is made by credit card, there is another discount of 10% on the bill. If Ali made a payment of ₹59,062.50 by credit card, then the marked price of the LED screen is:

- A. ₹1,02,500
- B. ₹1,00,000
- C. ₹1,20,075
- D. ₹90,650

**Q72 Successive discount**

The marked price of a water cooler is ₹5,420. The shopkeeper offers an off season discount of 15% on it and an additional discount of 5% for cash payment customer. Find the cost price for a customer who pays cash payment.

- A. ₹4,390
- B. ₹4,354.50
- C. ₹4,325.38
- D. ₹4,336

**Q73 Successive discount**

The marked price of a mobile phone was ₹18,500. A man bought the same for ₹13,000 after getting two successive discounts, the first at 24%. What was the second discount rate (correct to two places of decimals)?

- A. 6.25%
- B. 7.54%
- C. 9.25%
- D. 8.36%

**Q74 Successive discount**

The marked price of a jacket is ₹3,000. A shop offers a 10% discount, but during a sale, they offer an additional 5% discount on the already discounted price. What is the final price of the jacket after both discounts?

- A. ₹2,550
- B. ₹2,565
- C. ₹2,700
- D. ₹2,400



Q75 Successive discount

An electronic gadget is marked at ₹12,000. A store offers a 15% discount. Additionally, there is a seasonal discount of 5% on the discounted price. What is the final selling price of the gadget?

A. ₹10,000

B. ₹9,690



C. ₹9,840

D. ₹9,600

Q76 Successive discount

A store sells a product with an original price of ₹45,520. Calculate the total amount of discount provided if 10% trade discount and 5% scheme discount is applied on the transaction.

A. ₹3,300.40

B. ₹4,400.40

C. ₹5,500.40

D. ₹6,600.40

**Q77 Successive discount**

A store marks a washing machine at ₹25,000 and offers a series of two discounts: 10% and then 20% on the reduced price. What is the final price after both discounts?

A. ₹17,500

B. ₹22,500

C. ₹18,000



D. ₹18,500

Q78 Successive discount

Successive discounts of 15% and 7% is equivalent to a single discount of:

A. 20.95%



B. 11%

C. 23.05%

D. 22%

Q79 Successive discount

A retailer purchases a batch of electronics at a marked price of ₹20,000. The supplier offers a trade discount of 15% and an additional scheme discount of 5% on the price after the trade discount. What is the effective price the retailer pays after both discounts?

A. ₹17,750

B. ₹16,450

C. ₹18,150

D. ₹16,150

**Q80 Successive discount GST**

A television is marked at ₹50,000. The store offers a 25% discount and an additional 10% discount on the discounted price. After these discounts, the buyer has to pay 5% GST on the final price. What is the final amount paid by the buyer?

A. ₹35,000

B. ₹35,437.50



C. ₹36,400

D. ₹37,600.50

Q81 Successive discount difference

The difference between a discount of 30% on ₹2,200 and two successive discounts of 25% and 5% on the same amount is:

A. ₹28.5

B. ₹27.5



C. ₹25.5

D. ₹26.5

Q82 Successive discount voucher

A refrigerator is marked at ₹18,000. A store offers a discount of 30% on the marked price. If a customer uses a voucher for an additional ₹1,000 off after the discount, what is the final price?

A. ₹14,000

B. ₹13,000

C. ₹11,600



D. ₹12,600



Q83 Successive profit loss

P sells an item to Q at 47% profit. Q sells the same item to R at 50% loss. If R paid ₹ 6027 for the item, then at what price (in ₹) is the item purchased by P?

A. 8200



B. 8198

C. 8203

D. 8197

Q84 Successive profit loss

A sold an article to B at 12% profit and B sold it to C at 8% loss. If A sold it to C at the selling price of B, then find the profit or loss percentage that A would make.

A. 2.15% Profit

B. 2.15% Loss

C. 3.04% Profit



D. 3.04% Loss

Q85 Successive profit loss

P sells an item to Q at 54% profit. Q sells the same item to R at 60% loss. If R paid ₹ 5467 for the item, then at what price (in ₹) is the item purchased by P?

A. 8875



B. 8876

C. 8872

D. 8873

Q86 Successive profit loss

P sells an item to Q at 25% profit. Q sells the same item to R at 56% loss. If R paid ₹ 2783 for the item, then at what price (in ₹) is the item purchased by P?

A. 5060



B. 5057

C. 5059

D. 5058

Q87 Successive profit loss

Ravi sold an article to Mahesh at 15% profit and Mahesh sold it to Ashutosh at 10% loss. If Ashutosh paid ₹2,691 to Mahesh, then find the cost price of the article paid by Ravi.

A. ₹2,598

B. ₹2,550

C. ₹2,600



D. ₹2,635

Q88 Successive profit loss

Abhi sold a dress to Pari for ₹10,000. Pari sold it to Mikki at 20% profit. Mikki modified it with cost ₹,2000 and sold this dress to Sneha at a loss of 10%. The amount paid by Sneha for the dress was:

A. ₹11,950

B. ₹13,000

C. ₹14,200

D. ₹12,600

**Q89 Successor loss profit**

Devvrat sold a commodity at a loss of 3%. If he would have been able to sell it at a profit of 15%, he would have received ₹1,494 more. What was the cost price (in ₹) of the commodity?

A. 8,300



B. 8,350

C. 8,250

D. 8,400

Q90 additional discount

A store has a product with a cost price of ₹400. Additionally, if a customer uses a store loyalty card, they receive an extra 5% discount. What is the final price the customer pays?

A. 480

B. 360

C. 390

D. 380

**Q91 compare discounts**

What is the difference in the amounts between two schemes of discount, the first one being a discount of 20%, and the second one, 2 successive discounts of 15% and 5%, both given on shopping of ₹5,050?

A. ₹97.225

B. ₹37.875



C. ₹1,010

D. ₹975.75



Q92 cost price gain

A person sold 20 dining tables for ₹5,39,000; thereby gaining the cost price of five dining tables. Find the cost price of each dining table.

- A. ₹26,950
- B. ₹25,000
- C. ₹21,560
- D. ₹27,855

**Q93 discount and cashback**

On an item with marked price ₹180, 15% discount and a cashback of ₹25 is offered. The selling price of the item is ₹_____.

- A. 142
- B. 120
- C. 135
- D. 128

**Q94 discount and cost price**

A shopkeeper allows his customers 8% off on the marked price of goods and still gets a profit of 19.6%. What is the actual cost of an article marked ₹5,200?

- A. ₹4,500
- B. ₹4,150
- C. ₹4,000
- D. ₹4,350

**Q95 discount and profit**

A merchant permits a 24% discount on his advertised price and then makes a profit of 20%. What is the advertised price on which he gains ₹76?

- A. ₹650
- B. ₹600
- C. ₹480
- D. ₹560

**Q96 discount and profit**

An article was marked at ₹11,500. A discount of 25% was offered, resulting in a profit of 15%. What is the cost price of the article?

- A. ₹7,700
- B. ₹7,200
- C. ₹7,400
- D. ₹7,500

**Q97 discount and profit**

A shopkeeper allows his customers 10% off on the marked price of goods and still gets a profit of 12.5%. What is the actual cost of an article marked ₹2,750?

- A. ₹2,150
- B. ₹2,275
- C. ₹2,200
- D. ₹2,300

**Q98 discount and profit**

The marked price of a bicycle is ₹1,456. A shopkeeper allows a discount of 10% and gets a profit of 12%. Find the cost price of the bicycle.

- A. ₹1,370
- B. ₹1,170
- C. ₹1,270
- D. ₹1,070

**Q99 discount and profit**

The list price of a smart fan is ₹5,600 and it is available to a retailer at 25% discount. For how much should a retailer sell it to gain 15%?

- A. ₹4,890
- B. ₹4,830
- C. ₹4,850
- D. ₹4,875

**Q100 discount marked price**

An online store announced a 20% discount on all its apparels during the Diwali week. A further discount of ₹50 was given on UPI payment. Sara bought a saree by paying ₹3,190 using the UPI payment mode. Find the marked price of the saree.

- A. ₹4,050
- B. ₹4,095
- C. ₹4,025
- D. ₹4,000

**Q101 discount marked price**

A shopkeeper has announced 14% rebate on the marked price of an article. If the selling price of the article is ₹688, then the marked price of the article will be:

- A. ₹500
- B. ₹600
- C. ₹800
- D. ₹700



Q102 discount percent

The marked price of a mobile phone is ₹59,500. During the great Indian festive sale, it is sold for ₹47,600. Determine the discount percentage.

A. 21%

B. 20% ✓

C. 18%

D. 16%

Q103 discount selling price

The marked price of a smart watch is ₹4,000 and during a year end sale the seller allows a discount of 75% on it. Find the selling price (in ₹) of the smart watch.

A. 1,200

B. 1,000 ✓

C. 1,750

D. 1,500

Q104 discount to gain

A shopkeeper sold his goods at half the list price and thus lost 14%. If he had sold them at the listed price, his gain percentage would be ____.

A. 72% ✓

B. 36%

C. 14%

D. 86%

Q105 gain percent

Raghu bought toffees at 10 for a rupee. How many for a rupee must he sell to gain 400%?

A. Four

B. Five

C. Two ✓

D. Three

Q106 gain percent

Arun buys an old car for ₹4,75,000 and spends ₹80,000 on its repairs. If he sells the car for ₹5,85,000, find his gain percentage. (Rounded up to two decimal places)

A. 5.13%

B. 30.25%

C. 5.41% ✓

D. 6.32%

Q107 gain percent

The cost price of 20 articles is equal to the selling price of 16 articles. Find the profit percentage.

A. 15%

B. 20%

C. 22%

D. 25% ✓

Q108 gain percent

If the selling price of 10 raincoats is equal to the cost price of 12 raincoats, find the gain percentage.

A. 16%

B. 12%

C. 15%

D. 20% ✓

Q109 gain percent

A merchant sells 60 metre of cloth and gains selling price of 15 metre. Find the gain per cent (rounded off to 1 decimal place).

A. 33.3% ✓

B. 37.3%

C. 36.7%

D. 33.7%

Q110 loss percent

A person bought a watch for ₹800 and sold it for ₹600. What is the loss percentage?

A. 20%

B. 25% ✓

C. 30%

D. 10%

Q111 loss to gain

A man sold his watch at a loss of 5%. Had he sold it for ₹56.40 more, he would have gained 10%. What is the cost price (in ₹) of the watch?

A. ₹377

B. ₹376 ✓

C. ₹378

D. ₹375



Q112 marked price profit

Suji marked a dress 50% above the cost price. If she offers a discount of 30% on the marked price and the customer pays ₹5,250, the cost price is:

A. ₹7,500

B. ₹6,075

C. ₹5,000

D. ₹5,500

Q113 markup marked price

A shopkeeper marks up an item by 25% above its cost price. If the cost price of the item is ₹500, what is the marked price (in ₹)?

A. 625

B. 655

C. 512.5

D. 650

Q114 overall profit loss

A real estate agent sells two sites for ₹48,000 each. On one he gains 35% and on the other he loses 35%. What is his loss or gain percentage?

A. 12.75% Profit

B. 12.25% Loss

C. 12.75% Loss

D. 12.25% Profit

Q115 overall profit loss

A merchant buys a watch for ₹1,500 and sells it at a 10% loss. He then buys the same model for ₹1,600 and sells it at a 20% profit. Find the overall profit or loss percentage (rounded off to 2 decimal places).

A. Profit percentage is 4.48%

B. Loss percentage is 4.48%

C. Loss percentage is 5.48%

D. Profit percentage is 5.48%

Q116 overall profit loss

A person buys a radio for ₹1,200 and sells it at a 10% loss. The person then buys the same model from the supplier and sells it again at a 15% profit. What is the overall profit or loss percentage?

A. 4.5% loss

B. 2.5% profit

C. 3.5% profit

D. 2.55% loss

Q117 overall profit loss

Anwesha sells two handbags, one at a profit of 18% and the other at a loss of 18%. If the selling price of each handbag is ₹450, then what is the overall percentage of profit or loss?

A. 3.24% loss

B. 3.24% profit

C. 2.34% loss

D. 2.34% profit

Q118 profit on original

Ravi bought a camera and paid 18% less than its original price. He sold it at 30% profit on the price he had paid. How much was the profit percentage earned by Ravi on the original price?

A. 6.2%

B. 5.9%

C. 5.7%

D. 6.6%

Q119 successive discount

A wholesaler purchases goods worth ₹25,000. The manufacturer offers a trade discount of 10% and an additional scheme discount of 5%. Calculate the net price of the goods after both discounts.

A. ₹22,375

B. ₹21,365

C. ₹21,375

D. ₹21,275

Q120 successive discount

If two successive discounts of 8% and 9% are given, find the total discount percentage.

A. 16.28%

B. 15.28%

C. 20.28%

D. 18.28%



Q121 successive discount profit

On the marked price of an item, two successive discounts of 10% each are offered and a profit of 10% is earned. The marked price of the item is approximately ____ times its cost price.

A. 1.32

B. 1.38

C. 1.34

D. 1.36

**Q122 successive discounts**

If after three successive discounts of 20%, 25% and 35%, an item is sold for ₹33,150, what is its marked price (in ₹)?

A. 90,000

B. 82,000

C. 87,000

D. 85,000

**Q123 successive discounts**

A retailer sold a laptop at ₹27,000 by giving two continuous rebates of 20% and 10%. What is the marked price?

A. ₹37,500



B. ₹36,500

C. ₹37,000

D. ₹36,000

Q124 successive profit

An item with cost price of ₹120 is sold by P to R at a 12% profit. R earns a profit of ₹45.6 on the item and sells it to Q. The profit of P would have been ____% if the item is sold by P to Q directly at the same selling price.

A. 60

B. 40

C. 30

D. 50

**Q128 Cost selling articles**

The selling price of a dozen bananas is equal to the cost price of 20 bananas. The percentage of profit is ____.

A. 1.50%

B. 60%

C. $33\frac{1}{3}$

D. $66\frac{2}{3}$

**Q125 successive profit loss**

Prem sells an article to Ria at a profit of 20%. Ria sells the article back to Prem at a loss of 20%. In this transaction:

A. Prem makes a profit of 12%

B. Ria incurs a loss of 12%

C. Prem makes a profit of 25%



D. Ria makes a profit of 24%

Q126 successive profit loss

A shopkeeper bought an item for ₹400. He sold it at a profit of 25%. Then, the buyer sold it to another person at a loss of 10%. What is the final selling price?

A. ₹360

B. ₹500

C. ₹405

D. ₹450

**Q127 successive profit loss**

Nikhil sold a machine to Sonia at a profit of 33%. Sonia sold this machine to Aruna at a loss of 20%. If Nikhil paid ₹5,200 for this machine, then find the cost price of machine for Aruna.

A. ₹5,532.8



B. ₹5,632.8

C. ₹5,832.8

D. ₹5,732.8



Q129 False weight

A dealer sells his goods at 22% loss on cost price but uses 44% less weight. What is his percentage profit or loss?

A. $39\frac{5}{7}\%$

B. $39\frac{2}{7}\%$ ✓

C. $39\frac{4}{7}\%$

D. $39\frac{3}{7}\%$

Q130 Loss percent to profit

A wholesaler sells a tin of soybean oil for ₹5,720 and makes a loss of 12%. Now, if he decides to sell the second tin of soybean oil for ₹7,475, find his profit percentage in the sale of the second tin.

A. 15%

B. 25%

C. 10%

D. 20% ✓

Q131 Loss percentage

A person buys a cycle for ₹450 but because of certain urgency, he sells it for ₹350. Find his loss percentage?

A. $21\frac{2}{9}\%$

B. $23\frac{2}{9}\%$

C. $20\frac{2}{9}\%$

D. $22\frac{2}{9}\%$ ✓

Q132 Markup discount profit

A tradesman marks his goods 30% above the cost price and allows his customers a 20% reduction on their bills. What percentage profit does he make?

A. 4%

B. 8% ✓

C. 2%

D. 6%



Q133 Overall profit items

The prices of three items are ₹120, ₹150 and ₹180. On these items, respectively, 20%, 10% and 5% profits are earned. The overall profit on the items is ____%.

A. $8\frac{2}{3}$

B. $8\frac{1}{3}$

C. $10\frac{2}{3}$ ✓

D. $10\frac{1}{3}$

Q134 Purse profit price

Suhail purchased 400 purses and sold them at 25% profit. If $37\frac{1}{2}\%$ of them were sold at ₹75 each and rest for ₹52,520, then the cost price of each purse is:

A. ₹120

B. ₹130

C. ₹127.54 ✓

D. ₹125.70

Q135 discount and profit

The marked price of a book is ₹2,400. A bookseller gives a discount of 15% on it. What will be the cost price (in ₹) of the book if he still earns a 20% profit?

A. 1,800

B. 1,600 ✓

C. 1,700

D. 1,500

Q136 loss percent ratio

Safia calculated his loss percent as $14\frac{2}{7}\%$ on cost price. The ratio of selling price to cost price will be:

A. 7 : 1

B. 6 : 7

C. 7 : 6

D. 1 : 7 ✓



Q137 profit on two items

Seema bought a mobile and laptop at a certain price. She sold the mobile at 10% gain and laptop at 25% gain. She found that the cost price of the mobile is equal to the selling price of the laptop. Find her profit percentage.

A. $14\frac{2}{3}\%$

B. $15\frac{2}{3}\%$

C. $13\frac{2}{3}\%$

D. $16\frac{2}{3}\%$



Q138 successive discount

The marked price of an item ₹ 25,000. Under a scheme, successive discounts of 10% and 8% are given on it. Find the total discount given while selling the item under the given scheme.

A. ₹4,500

B. ₹4,400

C. ₹4,300

D. ₹4,600



Q139 successive discounts

The marked price of an article is ₹16,000. A shopkeeper offered two successive discounts of 10% and 5%, respectively, to a customer. At what price did the customer buy that item?

A. ₹11,680

B. ₹12,680

C. ₹13,680

D. ₹14,680



Arithmetic

79 Questions • Answer Key

Q1 Compare ratios

Which of the following ratio is smallest?

A. 13 : 45



B. 28 : 46

C. 24 : 31

D. 29 : 36

Q2 Compare ratios

Which of the following ratio is smallest?

A. 11 : 34

B. 17 : 40

C. 15 : 60



D. 26 : 53

Q3 Compare ratios

Which of the following ratio is smallest?

A. 12 : 33

B. 24 : 37

C. 21 : 59



D. 26 : 52

Q4 Compare ratios

Which of the following ratio is smallest?

A. 13 : 53



B. 19 : 42

C. 16 : 54

D. 25 : 39

Q5 Divide in ratio

There are 2664 students in a school and the ratio of boys to girls in the school is 41 : 31, then find the number of boys in school.

A. 1515

B. 1509

C. 1517



D. 1499

Q6 Divide in ratio

An amount of ₹903 is divided among three persons in the ratio of 6 : 2 : 7. The difference between the largest and the smallest shares (in ₹) in the distribution is:

A. 301



B. 249

C. 367

D. 341

Q7 Divide in ratio

An amount of ₹905 is divided among three persons in the ratio of 9 : 10 : 16. The difference between the largest and the smallest shares (in ₹) in the distribution is:

A. 274

B. 110

C. 181



D. 205

Q8 Divide in ratio

An amount of ₹968 is divided among three persons in the ratio of 16 : 13 : 15. The difference between the largest and the smallest shares (in ₹) in the distribution is:

A. 28

B. 20

C. 85

D. 66



Q9 Divide in ratio

There are 7847 students in a school and the ratio of boys to girls in the school is 42 : 17, then find the number of boys in school.

A. 5594

B. 5600

C. 5578

D. 5586



Q10 Divide in ratio

There are 2822 students in a school and the ratio of boys to girls in the school is 36 : 47, then find the number of boys in school.

- A. 1207
- B. 1218
- C. 1226
- D. 1224

**Q11 Divide in ratio**

An amount of ₹741 is divided among three persons in the ratio of 2 : 14 : 10. The difference between the largest and the smallest shares (in ₹) in the distribution is:

- A. 401
- B. 342
- C. 331
- D. 323

**Q12 Divide in ratio**

An amount of ₹440 is divided among three persons in the ratio of 7 : 17 : 16. The difference between the largest and the smallest shares (in ₹) in the distribution is:

- A. 127
- B. 110
- C. 114
- D. 84

**Q13 Divide in ratio**

An amount of ₹301 is divided among three persons in the ratio of 6 : 17 : 5. The difference between the largest and the smallest shares (in ₹) in the distribution is:

- A. 150
- B. 129
- C. 153
- D. 130

**Q14 Divide in ratio**

An amount of ₹858 is divided among three persons in the ratio of 9 : 8 : 13. The difference between the largest and the smallest shares (in ₹) in the distribution is:

- A. 173
- B. 233
- C. 143
- D. 237

**Q15 Income expenditure ratio**

The monthly incomes of two friends Chetan and Vipul, are in the ratio 5 : 7 respectively and each of them saves ₹72000 every month. If the ratio of their monthly expenditure is 1 : 3, find the monthly income of Chetan(in ₹).

- A. 126000
- B. 89000
- C. 91000
- D. 90000

**Q16 Income expenditure ratio**

The monthly incomes of two friends Keshav and Tushar, are in the ratio 5 : 7 respectively and each of them saves ₹93000 every month. If the ratio of their monthly expenditure is 2 : 3, find the monthly income of Keshav(in ₹).

- A. 465000
- B. 466000
- C. 651000
- D. 464000

**Q17 Income expenditure ratio**

The monthly incomes of two friends Ajay and Amit, are in the ratio 5 : 7 respectively and each of them saves ₹72000 every month. If the ratio of their monthly expenditure is 2 : 4, find the monthly income of Ajay(in ₹).

- A. 168000
- B. 121000
- C. 120000
- D. 119000

**Q18 Income expenditure ratio**

The monthly incomes of two friends Kiran and Mahesh, are in the ratio 5 : 7 respectively and each of them saves ₹75000 every month. If the ratio of their monthly expenditure is 2 : 4, find the monthly income of Kiran(in ₹).

- A. 125000
- B. 126000
- C. 175000
- D. 124000



Q19 Income expenditure ratio

The monthly incomes of two friends Mahesh and David, are in the ratio 5 : 7 respectively and each of them saves ₹75000 every month. If the ratio of their monthly expenditure is 2 : 3, find the monthly income of Mahesh(in ₹).

- A. 374000
- B. 525000
- C. 376000
- D. 375000

**Q20 Income expenditure ratio**

The monthly incomes of two friends Rupesh and Manjit, are in the ratio 5 : 7 respectively and each of them saves ₹84000 every month. If the ratio of their monthly expenditure is 2 : 3, find the monthly income of Rupesh(in ₹).

- A. 420000
- B. 588000
- C. 421000
- D. 419000

**Q21 Income expenditure ratio**

The monthly incomes of two friends Sachin and Chetan, are in the ratio 5 : 7 respectively and each of them saves ₹96000 every month. If the ratio of their monthly expenditure is 2 : 3, find the monthly income of Sachin(in ₹).

- A. 480000
- B. 479000
- C. 481000
- D. 672000

**Q22 Income expenditure ratio**

The monthly incomes of two friends Ashish and Kiran, are in the ratio 5 : 7 respectively and each of them saves ₹81000 every month. If the ratio of their monthly expenditure is 2 : 3, find the monthly income of Ashish(in ₹).

- A. 405000
- B. 567000
- C. 404000
- D. 406000

**Q23 Income expenditure ratio**

The monthly incomes of two friends Nirmal and Rakesh, are in the ratio 5 : 7 respectively and each of them saves ₹84000 every month. If the ratio of their monthly expenditure is 2 : 4, find the monthly income of Nirmal(in ₹).

- A. 140000
- B. 139000
- C. 196000
- D. 141000

**Q24 Income expenditure ratio**

The monthly incomes of two friends David and Ajay, are in the ratio 5 : 7 respectively and each of them saves ₹78000 every month. If the ratio of their monthly expenditure is 1 : 4, find the monthly income of David(in ₹).

- A. 126000
- B. 91000
- C. 90000
- D. 89000

**Q25 Income expenditure ratio**

The monthly incomes of two friends Kiran and Mahesh, are in the ratio 5 : 7 respectively and each of them saves ₹78000 every month. If the ratio of their monthly expenditure is 1 : 3, find the monthly income of Kiran(in ₹).

- A. 97500
- B. 98500
- C. 96500
- D. 136500

**Q26 Income expenditure ratio**

The monthly incomes of two friends Chetan and Vipul, are in the ratio 5 : 7 respectively and each of them saves ₹96000 every month. If the ratio of their monthly expenditure is 2 : 4, find the monthly income of Chetan(in ₹).

- A. 160000
- B. 159000
- C. 161000
- D. 224000



Q27 Income expenditure ratio

The monthly incomes of two friends Nirmal and Rakesh, are in the ratio 5 : 7 respectively and each of them saves ₹90000 every month. If the ratio of their monthly expenditure is 2 : 4, find the monthly income of Nirmal(in ₹).

A. 151000

B. 210000

C. 149000

D. 150000

**Q28 Income expenditure ratio**

The monthly incomes of two friends Gopal and Akshay, are in the ratio 5 : 7 respectively and each of them saves ₹93000 every month. If the ratio of their monthly expenditure is 2 : 4, find the monthly income of Gopal(in ₹).

A. 217000

B. 154000

C. 155000



D. 156000

Q29 Income expenditure ratio

The monthly incomes of two friends Rakesh and Shivam, are in the ratio 5 : 7 respectively and each of them saves ₹87000 every month. If the ratio of their monthly expenditure is 1 : 3, find the monthly income of Rakesh(in ₹).

A. 107750

B. 109750

C. 152250

D. 108750

**Q30 Mean proportional**

Find the mean proportional of 44 and 11?

A. 22



B. 19

C. 24

D. 25

Q31 Partnership capital time

Three partners invested in a business in the ratio 4:6:8. They invested their capitals for 8 months, 4 months and 5 months, respectively. What was the ratio of their profits?

A. 2:3:5

B. 7:3:5

C. 5:3:5

D. 4:3:5

**Q32 Partnership capital time**

Three partners invested in a business in the ratio 6:2:9. They invested their capitals for 2 months, 10 months and 5 months, respectively. What was the ratio of their profits?

A. 12:20:45



B. 11:20:45

C. 15:20:45

D. 13:20:45

Q33 Partnership capital time

Three partners invested in a business in the ratio 6:1:5. They invested their capitals for 7 months, 10 months and 8 months, respectively. What was the ratio of their profits?

A. 21:5:20



B. 20:5:20

C. 23:5:20

D. 19:5:20

Q34 Partnership investment profit

Out of the total profit of ₹15,500 in a business of A and B, A gets ₹5,500 as profit. If the investment of A is ₹67,500 less than the investment of B, then the investment of B (in ₹) is:

A. 1,25,000

B. 1,50,000



C. 1,60,000

D. 1,55,000

Q35 Partnership investment profit

In a business, A, B and C invest ₹1,00,000, ₹2,00,000 and ₹2,50,000, respectively. If B gets ₹5,500 as profit, then the total profit (in ₹) is:

A. 15,512

B. 15,552

C. 15,215

D. 15,125



Q36 Partnership late joiner

Lalit and Manoj started a business in partnership investing ₹10,000 and ₹18,000, respectively. After eight months, Nitin joined them by investing ₹24,000. What will be the total share of Nitin and Manoj in the total profit of ₹22,000 earned at the end of 2 years from the starting of the business?

A. ₹17,000



B. ₹14,000

C. ₹12,000

D. ₹19,000

Q37 Partnership profit shares

A company earns a profit (in ₹) that is distributed among the company's three partners in the ratio of 12 : 13 : 15. If the difference between the smallest and the largest shares is ₹36684, the total profit (in ₹) of the company is:

A. 489085

B. 489096

C. 489120



D. 489144

Q38 Partnership time capital

Three partners invested in a business in the ratio 5:9:1. They invested their capitals for 1 months, 9 months and 6 months, respectively. What was the ratio of their profits?

A. 5:81:6



B. 6:81:6

C. 3:81:6

D. 7:81:6

Q39 Partnership time capital

Three partners invested in a business in the ratio 6:7:9. They invested their capitals for 7 months, 3 months and 9 months, respectively. What was the ratio of their profits?

A. 17:7:27

B. 14:7:27



C. 15:7:27

D. 13:7:27

Q40 Proportion fourth term

If 4 , 31 , 92 , and y are in proportion, then the value of y is:

A. 722

B. 718

C. 713



D. 715

Q41 Proportion fourth term

If 30 , 50 , 96 , and y are in proportion, then the value of y is:

A. 160



B. 155

C. 150

D. 158

Q42 Proportion fourth term

If 63 , 21 , 54 , and y are in proportion, then the value of y is:

A. 27

B. 18



C. 21

D. 25

Q43 Proportion fourth term

If 8 , 38 , 60 , and y are in proportion, then the value of y is:

A. 284

B. 285



C. 289

D. 290

Q44 Proportion mean

If $100 : y :: y : 36$, find the positive value of y.

A. 58

B. 69

C. 52

D. 60

**Q45 Proportion mean**

If $162 : y :: y : 128$, find the positive value of y.

A. 153

B. 140

C. 142

D. 144



Q46 Proportion mean term

If $36 : y :: y : 9$, find the positive value of y .

A. 13

B. 18



C. 24

D. 22

Q47 Proportion mean term

If $72 : y :: y : 50$, find the positive value of y .

A. 68

B. 60



C. 70

D. 65

Q48 Proportion mean term

If $27 : y :: y : 75$, find the positive value of y .

A. 45



B. 40

C. 53

D. 49

Q49 Proportion mean term

If $96 : y :: y : 6$, find the positive value of y .

A. 24



B. 17

C. 30

D. 27

Q50 Ratio sharing

There are 7178 students in a school and the ratio of boys to girls in the school is $47 : 50$, then find the number of boys in school.

A. 3487

B. 3478



C. 3485

D. 3491

Q51 Ratio sharing

An amount of ₹980 is divided among three persons in the ratio of $2 : 6 : 12$. The difference between the largest and the smallest shares (in ₹) in the distribution is:

A. 511

B. 546

C. 490



D. 425

Q52 Ratio sharing

There are 2759 students in a school and the ratio of boys to girls in the school is $40 : 49$, then find the number of boys in school.

A. 1245

B. 1257

C. 1248

D. 1240

**Q53 Ratio sums find**

If $(x + y) : (y + z) : (z + x) = 3 : 5 : 4$ and $(x + y + z) = 8$, then the value of z is ____.

A. 4



B. 8

C. 6

D. 5

Q54 divide in ratio

There are 4182 students in a school and the ratio of boys to girls in the school is $23 : 28$, then find the number of boys in school.

A. 1890

B. 1903

C. 1886



D. 1867

Q55 divide in ratio

An amount of ₹165 is divided among three persons in the ratio of $5 : 7 : 3$. The difference between the largest and the smallest shares (in ₹) in the distribution is:

A. 11

B. 44



C. 139

D. 130



Q56 divide in ratio

There are 9306 students in a school and the ratio of boys to girls in the school is 41 : 25, then find the number of boys in school.

A. 5766

B. 5774

C. 5781



D. 5785

Q57 divide in ratio

An amount of ₹840 is divided among three persons in the ratio of 16 : 6 : 18. The difference between the largest and the smallest shares (in ₹) in the distribution is:

A. 252



B. 179

C. 169

D. 168

Q58 divide in ratio

There are 7314 students in a school and the ratio of boys to girls in the school is 27 : 26, then find the number of boys in school.

A. 3726



B. 3712

C. 3737

D. 3734

Q59 divide in ratio

An amount of ₹866 is divided among three persons in the ratio of 2 : 6 : 12. The difference between the largest and the smallest shares (in ₹) in the distribution is:

A. 355

B. 336

C. 433



D. 517

Q60 divide in ratio

An amount of ₹682 is divided among three persons in the ratio of 18 : 3 : 9. The difference between the largest and the smallest shares (in ₹) in the distribution is:

A. 345

B. 421

C. 341



D. 406

Q61 divide in ratio

An amount of ₹351 is divided among three persons in the ratio of 4 : 11 : 3. The difference between the largest and the smallest shares (in ₹) in the distribution is:

A. 240

B. 228

C. 156



D. 124

Q62 income expenditure ratio

The monthly incomes of two friends Amit and Gopal, are in the ratio 5 : 7 respectively and each of them saves ₹72000 every month. If the ratio of their monthly expenditure is 2 : 3, find the monthly income of Amit(in ₹).

A. 504000

B. 361000

C. 360000



D. 359000

Q63 income expenditure ratio

The monthly incomes of two friends Chetan and Vipul, are in the ratio 5 : 7 respectively and each of them saves ₹96000 every month. If the ratio of their monthly expenditure is 1 : 3, find the monthly income of Chetan(in ₹).

A. 119000

B. 121000

C. 120000



D. 168000

Q64 income expenditure ratio

The monthly incomes of two friends Vipul and Vijay, are in the ratio 5 : 7 respectively and each of them saves ₹81000 every month. If the ratio of their monthly expenditure is 2 : 4, find the monthly income of Vipul(in ₹).

A. 134000

B. 136000

C. 135000



D. 189000



Q65 income expenditure ratio

The monthly incomes of two friends Nirmal and Rakesh, are in the ratio 5 : 7 respectively and each of them saves ₹93000 every month. If the ratio of their monthly expenditure is 1 : 3, find the monthly income of Nirmal(in ₹).

A. 117250

B. 162750

C. 115250

D. 116250

**Q66 partnership ratio**

Ramneek starts a business with ₹1,45,600. After 5 months, Somesh joins him with ₹1,50,400. At the end of the year, in what ratio should they share the profit?

A. 23 : 41

B. 78 : 47



C. 39 : 49

D. 53 : 48

Q67 partnership ratio

In a business with C, A and B invest ₹50,000 and ₹60,000, respectively. The profit of C is double the profit of B. If the total profit is ₹23,000, then the profit of A (in ₹) is:

A. 6,000

B. 3,000

C. 5,000



D. 2,500

Q68 partnership ratio

Three partners invested in a business in the ratio 4:3:1. They invested their capitals for 9 months, 2 months and 11 months, respectively. What was the ratio of their profits?

A. 39:6:11

B. 37:6:11

C. 36:6:11



D. 38:6:11

Q69 partnership ratio

Three partners invested in a business in the ratio 1:9:8. They invested their capitals for 11 months, 6 months and 2 months, respectively. What was the ratio of their profits?

A. 11:54:16



B. 9:54:16

C. 8:54:16

D. 12:54:16

Q70 profit sharing ratio

A company earns a profit (in ₹) that is distributed among the company's three partners in the ratio of 10 : 4 : 13. If the difference between the smallest and the largest shares is ₹30545, the total profit (in ₹) of the company is:

A. 91613

B. 91550

C. 91552

D. 91635

**Q71 profit sharing ratio**

The shares of P, R and S in a business are in the ratio 2 : 3 : 4. If the total profit is ₹18,000, then S gets how much more (in ₹) than P?

A. 4,000



B. 1,000

C. 2,000

D. 3,000

Q72 proportion fourth term

If 19 , 57 , 81 , and y are in proportion, then the value of y is:

A. 248

B. 243



C. 249

D. 252

Q73 proportion fourth term

If 3 , 60 , 62 , and y are in proportion, then the value of y is:

A. 1240



B. 1234

C. 1249

D. 1245

Q74 proportion fourth term

If 2 , 64 , 86 , and y are in proportion, then the value of y is:

A. 2757

B. 2752



C. 2767

D. 2762



Q75 proportion fourth term

If 18 , 36 , 14 , and y are in proportion, then the value of y is:

A. 19

B. 28



C. 36

D. 34

Q76 proportion mean term

If $125 : y :: y : 180$, find the positive value of y.

A. 150



B. 158

C. 148

D. 145

Q77 proportion mean term

If $81 : y :: y : 196$, find the positive value of y.

A. 132

B. 126



C. 134

D. 128

Q78 Partnership late joiner

Akshay started a business, and he invested ₹60,000. After some months, Rajni came to join with him and invest ₹1,50,000. At the end of the year, the total profit was divided among them into the ratio 42 : 35. After how many months did Rajni join?

A. 7

B. 8



C. 9

D. 11

Q79 Partnership withdrawal

Mohan, Rahul, and Geeta enter into a partnership. They invest ₹35,000, ₹75,000, and ₹1,05,000, respectively. At the end of the first year, Rahul withdraws ₹25,000, while at the end of the second year, Geeta withdraws ₹75,000. In what ratio will the profit be shared at the end of 3 years?

A. 63:184:311

B. 63:105:219

C. 63:111:211

D. 63:105:184



Arithmetic

36 Questions • Answer Key

Q1 SI amount

A sum, when invested at 10% simple interest per annum, amounts to ₹2640 after 2 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 1 year?

- A. 110
- B. 440
- C. 880
- D. 220



Q2 SI amount

A sum, when invested at 10% simple interest per annum, amounts to ₹4080 after 2 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 1 year?

- A. 170
- B. 1360
- C. 340
- D. 680



Q3 SI amount

A sum, when invested at 10% simple interest per annum, amounts to ₹3840 after 2 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 2 years?

- A. 1280
- B. 320
- C. 640
- D. 2560



Q4 SI amount

A sum, when invested at 10% simple interest per annum, amounts to ₹3120 after 3 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 2 years?

- A. 240
- B. 1920
- C. 480
- D. 960



Q5 SI amount

A sum, when invested at 10% simple interest per annum, amounts to ₹2400 after 2 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 2 years?

- A. 200
- B. 400
- C. 800
- D. 1600



Q6 SI amount

A sum, when invested at 10% simple interest per annum, amounts to ₹3360 after 2 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 1 year?

- A. 1120
- B. 140
- C. 280
- D. 560



Q7 SI amount

A sum, when invested at 10% simple interest per annum, amounts to ₹4560 after 2 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 1 year?

- A. 380
- B. 1520
- C. 190
- D. 760



Q8 SI amount

A sum, when invested at 10% simple interest per annum, amounts to ₹2640 after 2 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 2 years?

- A. 880
- B. 220
- C. 1760
- D. 440



Q9 SI amount

A sum, when invested at 10% simple interest per annum, amounts to ₹2880 after 2 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 2 years?

A. 240

B. 960

C. 1920

D. 480

**Q10 SI amount**

A sum, when invested at 10% simple interest per annum, amounts to ₹3600 after 2 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 2 years?

A. 1200

B. 600



C. 2400

D. 300

Q11 SI amount

A sum, when invested at 10% simple interest per annum, amounts to ₹5040 after 2 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 2 years?

A. 420

B. 840



C. 3360

D. 1680

Q12 SI amount

A sum, when invested at 10% simple interest per annum, amounts to ₹5040 after 4 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 1 year?

A. 720

B. 180

C. 360



D. 1440

Q13 SI amount

A sum, when invested at 10% simple interest per annum, amounts to ₹4560 after 2 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 2 years?

A. 1520

B. 3040

C. 760



D. 380

Q14 SI amount

A sum, when invested at 10% simple interest per annum, amounts to ₹4080 after 2 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 2 years?

A. 680



B. 2720

C. 340

D. 1360

Q15 SI amount

A sum, when invested at 10% simple interest per annum, amounts to ₹3120 after 2 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 2 years?

A. 260

B. 2080

C. 1040

D. 520

**Q16 SI amount**

A sum, when invested at 10% simple interest per annum, amounts to ₹3360 after 2 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 2 years?

A. 280

B. 560



C. 2240

D. 1120



Q17 SI difference

Two banks, A and B, offered loans at 3.5% and 6% per annum, respectively. David borrowed an amount of ₹360000 from each bank. Find the positive difference between the amounts of simple interest paid to the two banks by David after 3 years.

A. 26500

B. 28500

C. 27000 ✓

D. 28000

Q18 SI difference

Two banks, A and B, offered loans at 3.5% and 6% per annum, respectively. David borrowed an amount of ₹480000 from each bank. Find the positive difference between the amounts of simple interest paid to the two banks by David after 4 years.

A. 47500

B. 48000 ✓

C. 49000

D. 49500

Q19 SI difference

Two banks, A and B, offered loans at 3.5% and 6% per annum, respectively. Chetan borrowed an amount of ₹440000 from each bank. Find the positive difference between the amounts of simple interest paid to the two banks by Chetan after 3 years.

A. 34500

B. 33000 ✓

C. 32500

D. 34000

Q20 SI difference

Two banks, A and B, offered loans at 3.5% and 6.5% per annum, respectively. Tushar borrowed an amount of ₹200000 from each bank. Find the positive difference between the amounts of simple interest paid to the two banks by Tushar after 3 years.

A. 19500

B. 17500

C. 18000 ✓

D. 19000

Q21 SI difference

Two banks, A and B, offered loans at 3.5% and 6% per annum, respectively. Shivam borrowed an amount of ₹460000 from each bank. Find the positive difference between the amounts of simple interest paid to the two banks by Shivam after 3 years positive difference (in ₹) .

A. 35500

B. 34500 ✓

C. 36000

D. 34000

Q22 SI difference

Two banks, A and B, offered loans at 3.5% and 6% per annum, respectively. Ajay borrowed an amount of ₹340000 from each bank. Find the positive difference between the amounts of simple interest paid to the two banks by Ajay after 3 years.

A. 26500

B. 25000

C. 25500 ✓

D. 27000

Q23 SI difference banks

Two banks, A and B, offered loans at 3.5% and 6% per annum, respectively. Vijay borrowed an amount of ₹400000 from each bank. Find the positive difference between the amounts of simple interest paid to the two banks by Vijay after 3 years.

A. 31000

B. 30000 ✓

C. 31500

D. 29500

Q24 SI difference banks

Two banks, A and B, offered loans at 3.5% and 6% per annum, respectively. Keshav borrowed an amount of ₹380000 from each bank. Find the positive difference between the amounts of simple interest paid to the two banks by Keshav after 4 years.

A. 39500

B. 37500

C. 38000 ✓

D. 39000



Q25 SI difference banks

Two banks, A and B, offered loans at 3.5% and 6% per annum, respectively. Ajay borrowed an amount of ₹500000 from each bank. Find the positive difference between the amounts of simple interest paid to the two banks by Ajay after 2 years.

A. 26500

B. 26000

C. 25000



D. 24500

Q26 SI difference banks

Two banks, A and B, offered loans at 3.5% and 6% per annum, respectively. Atul borrowed an amount of ₹420000 from each bank. Find the positive difference between the amounts of simple interest paid to the two banks by Atul after 3 years.

A. 33000

B. 31000

C. 32500

D. 31500

**Q27 SI difference banks**

Two banks, A and B, offered loans at 3.5% and 6% per annum, respectively. Sachin borrowed an amount of ₹460000 from each bank. Find the positive difference between the amounts of simple interest paid to the two banks by Sachin after 2 (in ₹) years.

A. 23000



B. 22500

C. 24500

D. 24000

Q28 SI difference banks

Two banks, A and B, offered loans at 3.5% and 6% per annum, respectively. Chetan borrowed an amount of ₹420000 from each bank. Find the positive difference between the amounts of simple interest paid to the two banks by Chetan after 2 years.

A. 22500

B. 20500

C. 21000



D. 22000

Q29 SI difference banks

Two banks, A and B, offered loans at 3.5% and 6% per annum, respectively. Gopal borrowed an amount of ₹440000 from each bank. Find the positive difference between the amounts of simple interest paid to the two banks by Gopal after 2 years.

A. 23500

B. 21500

C. 22000



D. 23000

Q30 SI difference banks

Two banks, A and B, offered loans at 3.5% and 6% per annum, respectively. Mukund borrowed an amount of ₹440000 from each bank. Find the positive difference between the amounts of simple interest paid to the two banks by Mukund after 4 years.

A. 45500

B. 44000



C. 43500

D. 45000

Q31 SI difference banks

Two banks, A and B, offered loans at 3.5% and 6% per annum, respectively. Gopal borrowed an amount of ₹360000 from each bank. Find the positive difference between the amounts of simple interest paid to the two banks by Gopal after 4 years (in ₹).

A. 37500

B. 36000



C. 37000

D. 35500

Q32 Simple interest finding

A sum, when invested at 10% simple interest per annum, amounts to ₹3120 after 3 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 1 year?

A. 480

B. 240



C. 960

D. 120



Q33 Simple interest finding

A sum, when invested at 10% simple interest per annum, amounts to ₹4800 after 2 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 2 years?

A. 400

B. 1600

C. 3200

D. 800

**Q34 Simple interest finding**

A sum, when invested at 10% simple interest per annum, amounts to ₹3840 after 2 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 1 year?

A. 640

B. 160

C. 1280

D. 320

**Q35 Simple interest finding**

A sum, when invested at 10% simple interest per annum, amounts to ₹2160 after 2 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 1 year?

A. 720

B. 360

C. 90

D. 180

**Q36 Simple interest finding**

A sum, when invested at 10% simple interest per annum, amounts to ₹2880 after 2 years. What is the simple interest (in ₹) on the same sum at the same rate of interest in 1 year?

A. 960

B. 480

C. 120

D. 240



Arithmetic

142 Questions • Answer Key

Q1 Average speed

A car travels 101 km in the first hour and 55 km in the second hour. What is the average speed (in km/h) of the car for the whole journey?

- A. 79
- B. 81
- C. 73
- D. 78



Q2 Average speed

If the distance between A and B is 1409 Km. From A, Vishal goes to B with speed 71 km/h and return to A with the speed 39 km/h. Find the average speed of Vishal. (rounded off to two decimal place)

- A. 50.35 km/h
- B. 40.32 km/h
- C. 50.73 km/h
- D. 44.05 km/h



Q3 Average speed

In a race, an athlete covers a distance of 354 m in 118 sec in the first lap. He covers the second lap of the same length in 59 sec. What is the average speed (in m/sec) of the athlete?

- A. 5
- B. 13
- C. 7
- D. 4



Q4 Average speed

In a race, an athlete covers a distance of 312 m in 52 sec in the first lap. He covers the second lap of the same length in 156 sec. What is the average speed (in m/sec) of the athlete?

- A. 1
- B. 5
- C. 11
- D. 3



Q5 Average speed

A girl goes to school at a speed of 28 km/hr. She comes back with a speed of 21 km/hr. Find her average speed for the whole journey.

- A. 17 km/h
- B. 24 km/h
- C. 21 km/h
- D. 16 km/h



Q6 Average speed

If the distance between A and B is 942 Km. From A, Chaman goes to B with speed 66 km/h and return to A with the speed 49 km/h. Find the average speed of Chaman. (rounded off to two decimal place)

- A. 47.91 km/h
- B. 51.69 km/h
- C. 50.69 km/h
- D. 56.24 km/h



Q7 Average speed

If the distance between A and B is 1404 Km. From A, Namit goes to B with speed 69 km/h and return to A with the speed 49 km/h. Find the average speed of Namit. (rounded off to two decimal place)

- A. 57.31 km/h
- B. 52.33 km/h
- C. 63.38 km/h
- D. 60.78 km/h



Q8 Average speed

A car travels 207 km in the first hour and 51 km in the second hour. What is the average speed (in km/h) of the car for the whole journey?

- A. 122
- B. 120
- C. 124
- D. 129



Q9 Average speed

In a race, an athlete covers a distance of 360 m in 120 sec in the first lap. He covers the second lap of the same length in 60 sec. What is the average speed (in m/sec) of the athlete?

A. 4



B. 14

C. 2

D. 7

Q10 Average speed

In a race, an athlete covers a distance of 408 m in 68 sec in the first lap. He covers the second lap of the same length in 136 sec. What is the average speed (in m/sec) of the athlete?

A. 7

B. 1

C. 4



D. 6

Q11 Average speed round trip

A girl goes to school at a speed of 10 km/hr. She comes back with a speed of 15 km/hr. Find her average speed for the whole journey.

A. 16 km/h

B. 14 km/h

C. 3 km/h

D. 12 km/h

**Q12 Average speed round trip**

If the distance between A and B is 1084 Km. From A, Vishal goes to B with speed 104 km/h and return to A with the speed 112 km/h. Find the average speed of Vishal.(rounded off to two decimal place)

A. 102.18 km/h

B. 110.64 km/h

C. 110.52 km/h

D. 107.85 km/h

**Q13 Average speed round trip**

A girl goes to school at a speed of 21 km/hr. She comes back with a speed of 42 km/hr. Find her average speed for the whole journey.

A. 30 km/h

B. 26 km/h

C. 28 km/h



D. 20 km/h

Q14 Average speed two hours

A car travels 194 km in the first hour and 286 km in the second hour. What is the average speed (in km/h) of the car for the whole journey?

A. 240



B. 234

C. 246

D. 249

Q15 Average speed two hours

A car travels 106 km in the first hour and 276 km in the second hour. What is the average speed (in km/h) of the car for the whole journey?

A. 183

B. 191



C. 189

D. 194

Q16 Average speed two hours

A car travels 187 km in the first hour and 77 km in the second hour. What is the average speed (in km/h) of the car for the whole journey?

A. 139

B. 134

C. 133

D. 132

**Q17 Average speed two hours**

A car travels 243 km in the first hour and 225 km in the second hour. What is the average speed (in km/h) of the car for the whole journey?

A. 238

B. 234



C. 240

D. 243



Q18 Average speed two hours

A car travels 209 km in the first hour and 157 km in the second hour. What is the average speed (in km/h) of the car for the whole journey?

A. 174

B. 183



C. 193

D. 179

Q19 Average speed two hours

A car travels 272 km in the first hour and 294 km in the second hour. What is the average speed (in km/h) of the car for the whole journey?

A. 277

B. 283



C. 293

D. 289

Q20 Average speed two laps

In a race, an athlete covers a distance of 420 m in 70 sec in the first lap. He covers the second lap of the same length in 140 sec. What is the average speed (in m/sec) of the athlete?

A. 4



B. 8

C. 2

D. 1

Q21 Average speed two laps

In a race, an athlete covers a distance of 312 m in 156 sec in the first lap. He covers the second lap of the same length in 52 sec. What is the average speed (in m/sec) of the athlete?

A. 12

B. 2

C. 3



D. 6

Q22 Average speed two laps

In a race, an athlete covers a distance of 336 m in 168 sec in the first lap. He covers the second lap of the same length in 56 sec. What is the average speed (in m/sec) of the athlete?

A. 3



B. 10

C. 12

D. 1

Q23 Boat still water

A man rows down a river of length 24 km in 4 hours with the stream and returns in 8 hours. What is the speed of the boat in still water?

A. 6.3 km/h

B. 9.4 km/h

C. 4.5 km/h



D. 5.4 km/h

Q24 Boat stream

A man can row at the speed of 8.5 km/h in still water. In a river running at the speed of 1.5 km/h, it takes him 51 minutes to row to a place and come back. How far (in km) is this place?

A. 5.5

B. 3.5



C. 4.5

D. 7.5

Q25 Bridge crossing

A man riding on a bicycle at a speed of 50 km/h crosses a bridge in 39 minutes. Find the length of the bridge?

A. 30.3 km

B. 35.9 km

C. 32.5 km



D. 30.4 km

Q26 Journey two speeds

A person can complete a journey in 13 hours. He covers the first one-third part of the journey at the rate of 24 km/h and the remaining distance at the rate of 60 km/h. What is the total distance of his journey?

A. 516 km

B. 525 km

C. 520 km



D. 513 km



Q27 Remaining speed

Kavya has to reach Bhopal which is 1011 km away in 19 hours. His starting speed for 7 hours was 25 km/hr. For the next 152 km his speed was 19km/hr. By what speed he must travel now so as to reach Bhopal in decided time of 19hours?

A. 165 km/hr

B. 177 km/hr

C. 167 km/hr

D. 171 km/hr

**Q28 Remaining speed**

Advait has to reach Kanpur which is 947 km away in 19 hours. His starting speed for 6 hours was 38 km/hr. For the next 70 km his speed was 35km/hr. By what speed he must travel now so as to reach Kanpur in decided time of 19hours?

A. 64 km/hr

B. 59 km/hr



C. 61 km/hr

D. 60 km/hr

Q29 Remaining speed

Aryan has to reach Ahmedabad which is 889 km away in 17 hours. His starting speed for 5 hours was 29 km/hr. For the next 96 km his speed was 24km/hr. By what speed he must travel now so as to reach Ahmedabad in decided time of 17hours?

A. 81 km/hr



B. 87 km/hr

C. 86 km/hr

D. 85 km/hr

Q30 Remaining speed

Arjun has to reach Jaipur which is 602 km away in 22 hours. His starting speed for 7 hours was 29 km/hr. For the next 189 km his speed was 21km/hr. By what speed he must travel now so as to reach Jaipur in decided time of 22hours?

A. 30 km/hr

B. 35 km/hr



C. 34 km/hr

D. 41 km/hr

Q31 Remaining speed

Diya has to reach Surat which is 804 km away in 24 hours. His starting speed for 9 hours was 58 km/hr. For the next 162 km his speed was 54km/hr. By what speed he must travel now so as to reach Surat in decided time of 24hours?

A. 10 km/hr



B. 12 km/hr

C. 16 km/hr

D. 4 km/hr

Q32 Required speed remaining

Ishaan has to reach Kolkata which is 737 km away in 21 hours. His starting speed for 7 hours was 49 km/hr. For the next 184 km his speed was 46km/hr. By what speed he must travel now so as to reach Kolkata in decided time of 21hours?

A. 18 km/hr

B. 23 km/hr

C. 21 km/hr



D. 17 km/hr

Q33 Required speed remaining

Ira has to reach Nagpur which is 744 km away in 16 hours. His starting speed for 8 hours was 34 km/hr. For the next 87 km his speed was 29km/hr. By what speed he must travel now so as to reach Nagpur in decided time of 16hours?

A. 79 km/hr

B. 74 km/hr

C. 83 km/hr

D. 77 km/hr

**Q34 Required speed remaining**

Shaurya has to reach Indore which is 652 km away in 18 hours. His starting speed for 3 hours was 73 km/hr. For the next 134 km his speed was 67km/hr. By what speed he must travel now so as to reach Indore in decided time of 18hours?

A. 26 km/hr

B. 23 km/hr



C. 20 km/hr

D. 18 km/hr



Q35 Running round field

How many seconds will a boy take to run one complete round around a square field of side 87 metres, if he runs at a speed of 3 km/h?

- A. 425
- B. 424
- C. 421
- D. 417.6

**Q36 Running round field**

How many seconds will a boy take to run one complete round around a square field of side 19 metres, if he runs at a speed of 2 km/h?

- A. 138
- B. 136.8
- C. 144
- D. 141

**Q37 Running round field**

How many seconds will a boy take to run one complete round around a square field of side 79 metres, if he runs at a speed of 4 km/h?

- A. 284.3
- B. 275
- C. 291
- D. 294

**Q38 Running round field**

How many seconds will a boy take to run one complete round around a square field of side 78 metres, if he runs at a speed of 8 km/h?

- A. 135
- B. 130
- C. 139
- D. 140.3

**Q39 Running round field**

How many seconds will a boy take to run one complete round around a square field of side 20 metres, if he runs at a speed of 16 km/h?

- A. 18
- B. 21
- C. 17
- D. 13

**Q40 Running round field**

How many seconds will a boy take to run one complete round around a square field of side 51 metres, if he runs at a speed of 9 km/h?

- A. 82
- B. 91
- C. 81.5
- D. 79

**Q41 Speed basic**

An Uber bike covers a distance of 304 km in 19 hours. What is its speed in km/h?

- A. 16
- B. 14
- C. 23
- D. 7

**Q42 Speed basic**

An Uber auto covers a distance of 120 km in 20 hours. What is its speed in km/h?

- A. 9
- B. 6
- C. 16
- D. 10

**Q43 Speed change time**

A bus travelling at 96 km/h completes a journey in 16 hours. At what speed will it have to cover the same distance in 8 hours?

- A. 192 km/h
- B. 188 km/h
- C. 193 km/h
- D. 197 km/h

**Q44 Speed change time**

A bus travelling at 72 km/h completes a journey in 15 hours. At what speed will it have to cover the same distance in 12 hours?

- A. 90 km/h
- B. 89 km/h
- C. 84 km/h
- D. 99 km/h



Q45 Speed change time

A bus travelling at 87 km/h completes a journey in 15 hours. At what speed will it have to cover the same distance in 9 hours?

A. 147 km/h

B. 145 km/h ✓

C. 143 km/h

D. 155 km/h

Q46 Speed change time

A bus travelling at 35 km/h completes a journey in 20 hours. At what speed will it have to cover the same distance in 7 hours?

A. 100 km/h ✓

B. 92 km/h

C. 94 km/h

D. 90 km/h

Q47 Speed distance time

A man riding on a bicycle at a speed of 43 km/h crosses a bridge in 54 minutes. Find the length of the bridge?

A. 45.8 km

B. 29.8 km

C. 46.4 km

D. 38.7 km ✓

Q48 Speed distance time

An Uber auto covers a distance of 649 km in 59 hours. What is its speed in km/h?

A. 11 ✓

B. 16

C. 12

D. 20

Q49 Speed from distance

An Uber bike covers a distance of 644 km in 23 hours. What is its speed in km/h?

A. 24

B. 37

C. 29

D. 28 ✓

Q50 Speed from distance

An Uber auto covers a distance of 322 km in 46 hours. What is its speed in km/h?

A. 7 ✓

B. 2

C. 9

D. 11

Q51 Speed from distance

An Uber cab covers a distance of 384 km in 16 hours. What is its speed in km/h?

A. 27

B. 22

C. 14

D. 24 ✓

Q52 Speed from distance

An Uber auto covers a distance of 525 km in 21 hours. What is its speed in km/h?

A. 25 ✓

B. 26

C. 33

D. 22

Q53 Speed time inverse

A bus travelling at 84 km/h completes a journey in 7 hours. At what speed will it have to cover the same distance in 14 hours?

A. 45 km/h

B. 44 km/h

C. 42 km/h ✓

D. 40 km/h

Q54 Speed time inverse

A bus travelling at 56 km/h completes a journey in 16 hours. At what speed will it have to cover the same distance in 8 hours?

A. 103 km/h

B. 118 km/h

C. 106 km/h

D. 112 km/h ✓



Q55 Speed time inverse

A bus travelling at 100 km/h completes a journey in 17 hours. At what speed will it have to cover the same distance in 5 hours?

A. 332 km/h

B. 340 km/h



C. 347 km/h

D. 344 km/h

Q56 Speed unit conversion

A bike goes 89 meters in a second. Find its speed in km/hr.

A. 315.9

B. 329.6

C. 320.4



D. 327.6

Q57 Speed unit conversion

A bike goes 47 meters in a second. Find its speed in km/hr.

A. 162.5

B. 169.2



C. 162.6

D. 175.3

Q58 Speed unit conversion

A bike goes 83 meters in a second. Find its speed in km/hr.

A. 302.8

B. 308.1

C. 298.8



D. 297.3

Q59 Speed unit conversion

A bike goes 23 meters in a second. Find its speed in km/hr.

A. 82.8



B. 75.5

C. 84.9

D. 80.3

Q60 Speed unit conversion

A bike goes 32 meters in a second. Find its speed in km/hr.

A. 113.8

B. 117.4

C. 115.2



D. 105.3

Q61 Time to run around

How many seconds will a boy take to run one complete round around a square field of side 78 metres, if he runs at a speed of 13 km/h?

A. 86.4



B. 86

C. 79

D. 94

Q62 Time to run around

How many seconds will a boy take to run one complete round around a square field of side 53 metres, if he runs at a speed of 8 km/h?

A. 102

B. 88

C. 101

D. 95.4

**Q63 Time to run around**

How many seconds will a boy take to run one complete round around a square field of side 42 metres, if he runs at a speed of 12 km/h?

A. 50.4



B. 48

C. 47

D. 60

Q64 Time to run around

How many seconds will a boy take to run one complete round around a square field of side 18 metres, if he runs at a speed of 6 km/h?

A. 43.2



B. 36

C. 40

D. 43



Q65 Train and man opposite

A 375 m long train crosses a man walking at a speed of 10.2 km/h in the opposite direction in 15 seconds. What is the speed (in km/h) of the train?

A. 77.6

B. 76.2

C. 77.3

D. 79.8

**Q66 Train and man opposite**

A 320 m long train crosses a man walking at a speed of 9.4 km/h in the opposite direction in 24 seconds. What is the speed (in km/h) of the train ?

A. 38.6



B. 34.4

C. 36.3

D. 43.9

Q67 Train and man opposite

A 242 m long train crosses a man walking at a speed of 9.5 km/h in the opposite direction in 24 seconds. What is the speed (in km/h) of the train ?

A. 22.4

B. 28.3

C. 26.8



D. 23.8

Q68 Train and man opposite

A 214 m long train crosses a man walking at a speed of 5.7 km/h in the opposite direction in 9 seconds. What is the speed (in km/h) of the train?

A. 82.8

B. 84.3

C. 79.9



D. 83.7

Q69 Train crossing man

A 145 m long train crosses a man walking at a speed of 9.5 km/h in the opposite direction in 30 seconds. What is the speed (in km/h) of the train ?

A. 7.5

B. 7.9



C. 4.4

D. 6.1

Q70 Train crossing man

A 338 m long train crosses a man walking at a speed of 6.8 km/h in the opposite direction in 12 seconds. What is the speed (in km/h) of the train ?

A. 90.5

B. 97.5

C. 94.6



D. 91.6

Q71 Train crossing man

A 555 m long train crosses a man walking at a speed of 3.4 km/h in the opposite direction in 9 seconds. What is the speed (in km/h) of the train?

A. 222.1

B. 218.6



C. 213.6

D. 216.4

Q72 Train crossing man

A 629 m long train crosses a man walking at a speed of 10.4 km/h in the opposite direction in 12 seconds. What is the speed (in km/h) of the train?

A. 183.1

B. 178.3



C. 177.4

D. 176.6

Q73 Train overtaking length

Two trains of equal length are running on parallel lines in the same direction at speeds of 49 km/h and 31 km/h. The faster train passes the slower train in 42 seconds. The length of each train is:

A. 105 meters



B. 95 meters

C. 124 meters

D. 103 meters

Q74 Train overtaking length

Two trains of equal length are running on parallel lines in the same direction at speeds of 100 km/h and 66 km/h. The faster train passes the slower train in 18 seconds. The length of each train is:

A. 74 meters

B. 85 meters



C. 65 meters

D. 102 meters



Q75 Train overtaking persons

A train overtakes two persons walking along a railway track. The first one walks at 7.2 km/h. The other one walks at 12.6 km/h. The train needs 6.6 and 13.2 seconds respectively to overtake them. What is the speed of the train if both the persons are walking in the same direction as the train?

A. 18 km/h



B. 26 km/h

C. 27 km/h

D. 20 km/h

Q76 Trains same direction

Two trains of equal length are running on parallel lines in the same direction at speeds of 112 km/h and 46 km/h. The faster train passes the slower train in 12 seconds. The length of each train is:

A. 113 meters

B. 122 meters

C. 110 meters



D. 103 meters

Q77 Trains same direction

Two trains of equal length are running on parallel lines in the same direction at speeds of 101 km/h and 29 km/h. The faster train passes the slower train in 21 seconds. The length of each train is:

A. 202 meters

B. 210 meters



C. 209 meters

D. 208 meters

Q78 Trains same direction meet

Train 1 travelling at a speed of 80 km/hr leaves station A at 6:00 a.m., and train 2 travelling at 105 km/hr starts from station A at 8:30 a.m. in the same direction on a parallel track. At what distance (in km) from station A will train 2 meet train 1?

A. 920

B. 860

C. 780

D. 840

**Q79 Two speed difference**

In covering a distance of 40 km, Amit takes 2 hours more than Vinay. If Amit doubles his speed, then he would take 8 hour less than Vinay. Amit's speed is:

A. 11 km/h

B. 4 km/h

C. 12 km/h

D. 2 km/h

**Q80 Two speed difference**

In covering a distance of 126 km, Anirudh takes 5 hours more than Burhan. If Anirudh doubles his speed, then he would take 4 hour less than Burhan. Anirudh's speed is:

A. 15 km/h

B. 2 km/h

C. 5 km/h

D. 7 km/h

**Q81 Two speed difference**

In covering a distance of 144 km, Pranshu takes 3 hours more than Chandu. If Pranshu doubles his speed, then he would take 5 hour less than Chandu. Pranshu's speed is:

A. 3 km/h

B. 16 km/h

C. 9 km/h



D. 4 km/h

Q82 Two speed difference

In covering a distance of 192 km, Anmol takes 9 hours more than Nikhil. If Anmol doubles his speed, then he would take 7 hour less than Nikhil. Anmol's speed is:

A. 15 km/h

B. 3 km/h

C. 14 km/h

D. 6 km/h

**Q83 Two speed journey**

A person can complete a journey in 11 hours. He covers the first one-third part of the journey at the rate of 36 km/h and the remaining distance at the rate of 60 km/h. What is the total distance of his journey (in km)?

A. 540 km



B. 534 km

C. 535 km

D. 539 km



Q84 Two speed journey

A person can complete a journey in 28 hours. He covers the first one-third part of the journey at the rate of 81 km/h and the remaining distance at the rate of 27 km/h. What is the total distance of his journey?

A. 981

B. 979

C. 972



D. 982

Q85 Unit conversion speed

A bike goes 48 meters in a second. Find its speed in km/hr.

A. 164.8

B. 172.8



C. 164.3

D. 167.6

Q86 Unit conversion speed

A bike goes 7 meters in a second. Find its speed in km/hr.

A. 25.2



B. 34.4

C. 25.1

D. 26.9

Q87 Unit conversion speed

A bike goes 46 meters in a second. Find its speed in km/hr.

A. 165.6



B. 160.1

C. 176.4

D. 173.2

Q88 Unit conversion speed

A bike goes 94 meters in a second. Find its speed in km/hr.

A. 338.4



B. 333.7

C. 347.9

D. 333.1

Q89 Upstream downstream boat

The speed of the current is 4 km/hr. A motorboat goes 6 km upstream and back again to the starting point in 48 minutes. The speed (in km/hr) of the motor of the sailor is:

A. 8

B. 16



C. 17

D. 18

Q90 Upstream downstream boat

A boat covers 4 km upstream and 15 km downstream in 7 hours, while it covers 16 km upstream and 35 km downstream in 23 hours. What is the speed of the current?

A. 2 km/hr



B. 2.5 km/hr

C. 1.5 km/hr

D. 1 km/hr

Q91 Upstream downstream boat

A man can row 12 km/hr in still water. When the river is running at 2.2 km/hr, it takes him 1.2 hours to row to a place and come back. How far is the place?

A. 6.658 kilometres

B. 6.758 kilometres

C. 6.958 kilometres



D. 6.858 kilometres

Q92 average speed

A girl goes to school at a speed of 6 km/hr. She comes back with a speed of 18 km/hr. Find her average speed for the whole journey.

A. 4 km/h

B. 10 km/h

C. 11 km/h

D. 9 km/h

**Q93 average speed**

What is the average speed of a car which covers half the distance with a speed of 28 km/h and the other half with a speed of 84 km/h?

A. 43km/h

B. 38km/h

C. 42km/h



D. 39km/h



Q94 average speed

What is the average speed of a van which covers half the distance with a speed of 48 km/h and the other half with a speed of 24 km/h?

- A. 38km/h
- B. 32km/h
- C. 33km/h
- D. 40km/h

**Q95 average speed**

A girl goes to school at a speed of 10 km/hr. She comes back with a speed of 40 km/hr. Find her average speed for the whole journey.

- A. 16 km/h
- B. 14 km/h
- C. 10 km/h
- D. 6 km/h

**Q96 average speed**

A car travels 281 km in the first hour and 163 km in the second hour. What is the average speed (in km/h) of the car for the whole journey?

- A. 229
- B. 223
- C. 215
- D. 222

**Q97 average speed laps**

In a race, an athlete covers a distance of 366 m in 61 sec in the first lap. He covers the second lap of the same length in 183 sec. What is the average speed (in m/sec) of the athlete?

- A. 3
- B. 11
- C. 10
- D. 8

**Q98 average speed laps**

In a race, an athlete covers a distance of 372 m in 186 sec in the first lap. He covers the second lap of the same length in 62 sec. What is the average speed (in m/sec) of the athlete?

- A. 1
- B. 4
- C. 2
- D. 3

**Q99 average speed laps**

In a race, an athlete covers a distance of 312 m in 104 sec in the first lap. He covers the second lap of the same length in 52 sec. What is the average speed (in m/sec) of the athlete?

- A. 4
- B. 8
- C. 12
- D. 10

**Q100 average speed laps**

In a race, an athlete covers a distance of 360 m in 60 sec in the first lap. He covers the second lap of the same length in 180 sec. What is the average speed (in m/sec) of the athlete?

- A. 10
- B. 3
- C. 12
- D. 9

**Q101 average speed laps**

In a race, an athlete covers a distance of 402 m in 134 sec in the first lap. He covers the second lap of the same length in 67 sec. What is the average speed (in m/sec) of the athlete?

- A. 12
- B. 4
- C. 5
- D. 3

**Q102 average speed laps**

In a race, an athlete covers a distance of 438 m in 146 sec in the first lap. He covers the second lap of the same length in 73 sec. What is the average speed (in m/sec) of the athlete?

- A. 11
- B. 10
- C. 6
- D. 4



Q103 average speed laps

In a race, an athlete covers a distance of 300 m in 50 sec in the first lap. He covers the second lap of the same length in 150 sec. What is the average speed (in m/sec) of the athlete?

A. 3



B. 11

C. 12

D. 8

Q104 boat and stream

If the ratio of speed upstream and downstream is 5 : 7 and the speed of the stream is 6 m/sec, then what is the time taken by a boat to cover the total distance of 210 m both upstream and downstream?

A. 2 sec

B. 7 sec

C. 12 sec



D. 10 sec

Q105 journey two speeds

A person can complete a journey in 22 hours. He covers the first one-third part of the journey at the rate of 15 km/h and the remaining distance at the rate of 45 km/h. What is the total distance of his journey (in km)?

A. 584

B. 585

C. 594



D. 590

Q106 journey two speeds

A person can complete a journey in 6 hours. He covers the first one-third part of the journey at the rate of 23 km/h and the remaining distance at the rate of 46 km/h. What is the total distance (in km) of his journey?

A. 209

B. 216

C. 201

D. 207

**Q107 journey two speeds**

A person can complete a journey in 9 hours. He covers the first one-third part of the journey at the rate of 10 km/h and the remaining distance at the rate of 20 km/h. What is the total distance of his journey (in km)?

A. 135



B. 141

C. 143

D. 144

Q108 journey two speeds

A person can complete a journey in 24 hours. He covers the first one-third part of the journey at the rate of 42 km/h and the remaining distance at the rate of 12 km/h. What is the total distance(km) of his journey?

A. 386

B. 385

C. 378



D. 371

Q109 journey two speeds

A person can complete a journey in 9 hours. He covers the first one-third part of the journey at the rate of 35 km/h and the remaining distance at the rate of 28 km/h. What is the total distance (in km) of his journey?

A. 277

B. 275

C. 270



D. 268

Q110 run round field

How many seconds will a boy take to run one complete round around a square field of side 55 metres, if he runs at a speed of 18 km/h?

A. 44



B. 47

C. 35

D. 37



Q111 run round field

How many seconds will a boy take to run one complete round around a square field of side 38 metres, if he runs at a speed of 6 km/h?

A. 71.2

B. 61.2

C. 91.2

D. 50.1

Q112 speed time difference

In covering a distance of 90 km, Anirudh takes 8 hours more than Burhan. If Anirudh doubles his speed, then he would take 7 hour less than Burhan. Anirudh's speed is:

A. 10 km/h

B. 11 km/h

C. 8 km/h

D. 3 km/h

Q113 speed time difference

In covering a distance of 72 km, Amit takes 5 hours more than Vinay. If Amit doubles his speed, then he would take 7 hour less than Vinay. Amit's speed is:

A. 1 km/h

B. 5 km/h

C. 3 km/h

D. 6 km/h

Q114 speed time difference

In covering a distance of 56 km, Anirudh takes 5 hours more than Burhan. If Anirudh doubles his speed, then he would take 2 hour less than Burhan. Anirudh's speed is:

A. 14 km/h

B. 3 km/h

C. 4 km/h

D. 8 km/h

Q115 speed time distance

A man riding on a bicycle at a speed of 21 km/h crosses a bridge in 6 minutes. Find the length of the bridge?

A. 6.1 km

B. 5.1 km

C. 2.1 km

D. 4.5 km

Q116 speed time distance

A man riding on a bicycle at a speed of 17 km/h crosses a bridge in 42 minutes. Find the length of the bridge?

A. 11.9 km

B. 7.3 km

C. 3.8 km

D. 17.4 km

Q117 speed time distance

A man riding on a bicycle at a speed of 95 km/h crosses a bridge in 6 minutes. Find the length of the bridge?

A. 0.2 km

B. 9.5 km

C. 4.6 km

D. 3.2 km

Q118 speed time distance

A man riding on a bicycle at a speed of 93 km/h crosses a bridge in 36 minutes. Find the length of the bridge?

A. 55.8 km

B. 50.5 km

C. 46.4 km

D. 46.9 km

Q119 speed time distance

A man riding on a bicycle at a speed of 66 km/h crosses a bridge in 18 minutes. Find the length of the bridge?

A. 21.9 km

B. 22.5 km

C. 19.8 km

D. 24.5 km

Q120 speed time inverse

A bus travelling at 55 km/h completes a journey in 8 hours. At what speed will it have to cover the same distance in 20 hours?

A. 22 km/h

B. 32 km/h

C. 30 km/h

D. 15 km/h



Q121 speed time inverse

A bus travelling at 11 km/h completes a journey in 14 hours. At what speed will it have to cover the same distance in 11 hours?

- A. 4 km/h
- B. 23 km/h
- C. 18 km/h
- D. 14 km/h

**Q122 speed time inverse**

A bus travelling at 99 km/h completes a journey in 14 hours. At what speed will it have to cover the same distance in 18 hours?

- A. 77 km/h
- B. 81 km/h
- C. 69 km/h
- D. 74 km/h

**Q123 speed time inverse**

A bus travelling at 42 km/h completes a journey in 20 hours. At what speed will it have to cover the same distance in 12 hours?

- A. 73 km/h
- B. 68 km/h
- C. 80 km/h
- D. 70 km/h

**Q124 speed time inverse**

A bus travelling at 80 km/h completes a journey in 14 hours. At what speed will it have to cover the same distance in 20 hours?

- A. 53 km/h
- B. 56 km/h
- C. 48 km/h
- D. 51 km/h

**Q125 train and man**

A 250 m long train overtakes a man moving at a speed of 7 km/h (in same direction) in 36 seconds. How much time (in seconds) will it take this train to completely cross another 415 m long train, moving in the opposite direction at a speed of 82 km/h?

- A. 31
- B. 30
- C. 17
- D. 21

**Q126 train and man**

A 120 m long train crosses a man walking at a speed of 8.5 km/h in the opposite direction in 12 seconds. What is the speed (in km/h) of the train?

- A. 23.3
- B. 31.5
- C. 29.1
- D. 27.5

**Q127 train and man**

A 646 m long train crosses a man walking at a speed of 4.5 km/h in the opposite direction in 24 seconds. What is the speed (in km/h) of the train?

- A. 92.4
- B. 96.8
- C. 91.1
- D. 89.3

**Q128 train and man**

A 340 m long train crosses a man walking at a speed of 4.5 km/h in the opposite direction in 6 seconds. What is the speed (in km/h) of the train?

- A. 199.5
- B. 202.8
- C. 195.6
- D. 203.5

**Q129 train and man**

A 815 m long train crosses a man walking at a speed of 2.7 km/h in the opposite direction in 18 seconds. What is the speed (in km/h) of the train?

- A. 157.5
- B. 155.2
- C. 162.2
- D. 160.3

**Q130 train crossing**

A 275 m long train overtakes a man moving at a speed of 6 km/h (in same direction) in 45 seconds. How much time (in seconds) will it take this train to completely cross another 280 m long train, moving in the opposite direction at a speed of 26 km/h?

- A. 24
- B. 44
- C. 28
- D. 37



Q131 train overtaking

A 280 m long train overtakes a man moving at a speed of 5 km/h (in same direction) in 42 seconds. How much time (in seconds) will it take this train to completely cross another 500 m long train, moving in the opposite direction at a speed of 43 km/h?

A. 38

B. 52

C. 34

D. 39

**Q132** train overtaking persons

A train overtakes two persons walking along a railway track. The first one walks at 5.4 km/h. The other one walks at 10.8 km/h. The train needs 5.1 and 6.8 seconds respectively to overtake them. What is the speed of the train if both the persons are walking in the same direction as the train?

A. 27 km/h



B. 36 km/h

C. 18 km/h

D. 34 km/h

Q133 trains same direction

Two trains of equal length are running on parallel lines in the same direction at speeds of 90 km/h and 51 km/h. The faster train passes the slower train in 36 seconds. The length of each train is:

A. 199 meters

B. 195 meters



C. 186 meters

D. 207 meters

Q134 unit conversion speed

A bike goes 8 meters in a second. Find its speed in km/hr.

A. 28.8



B. 29.7

C. 34.3

D. 31.2

Q135 Boat stream

A man can row at the speed of 9.5 km/h in still water. He finds that it takes him twice as much time to row up than to row down the same distance in the river. Find the speed (in km/h) of the current.

A. $2\frac{1}{6}$ B. $4\frac{1}{3}$ C. $3\frac{1}{6}$ D. $5\frac{1}{3}$ **Q136** Train meeting time

Train A leaves station M at 7:40 AM and reaches station N at 2:40 PM on the same day. Train B leaves station N at 9:40 AM and reaches station M at 2:40 PM on the same day. Find the time when Trains A and B meet.

A. 11:23 PM

B. 5:12 PM

C. 10:29 PM

D. 11:45 AM



Q137 Train meeting time

Train A leaves station M at 6:20 AM and reaches station N at 3:20 PM on the same day. Train B leaves station N at 8:20 AM and reaches station M at 2:20 PM on the same day. Find the time when Trains A and B meet.

A. 3:30 PM

B. 7:38 PM

C. 9:51 AM

D. 11:08 AM

**Q138** Train meeting time

Train A leaves station M at 6:15 AM and reaches station N at 3:15 PM on the same day. Train B leaves station N at 8:15 AM and reaches station M at 2:15 PM on the same day. Find the time when Trains A and B meet.

A. 4:34 AM

B. 10:24 AM

C. 11:03 AM



D. 12:53 PM

Q139 Trains meeting time

Train A leaves station M at 7:30 AM and reaches station N at 2:30 PM on the same day. Train B leaves station N at 9:30 AM and reaches station M at 2:30 PM on the same day. Find the time when Trains A and B meet.

A. 1:43 PM

B. 11:30 PM

C. 11:35 AM



D. 7:08 AM

Q140 Trains meeting time

Train A leaves station M at 7:45 AM and reaches station N at 2:45 PM on the same day. Train B leaves station N at 9:45 AM and reaches station M at 2:45 PM on the same day. Find the time when Trains A and B meet.

A. 9:49 AM

B. 11:50 AM



C. 2:50 AM

D. 9:21 PM



Q141 trains meeting time

Train A leaves station M at 7:20 AM and reaches station N at 2:20 PM on the same day. Train B leaves station N at 9:20 AM and reaches station M at 2:20 PM on the same day. Find the time when Trains A and B meet.

A. 11:25 AM



B. 9:38 PM

C. 1:11 PM

D. 10:34 AM

Q142 trains meeting time

Train A leaves station M at 7:35 AM and reaches station N at 2:35 PM on the same day. Train B leaves station N at 9:35 AM and reaches station M at 2:35 PM on the same day. Find the time when Trains A and B meet.

A. 11:40 AM



B. 7:57 PM

C. 7:34 AM

D. 11:18 AM



Blackbook Vocabulary — Now in the App!

▶ Download Now on Google Play

Arithmetic

69 Questions • Answer Key

Q1 Combined work

Aryan takes 12 hours to mow a large lawn. He and Armaan together can mow it in 7 hours. How long will Armaan take to mow the lawn if he works alone?

A. 16 hours 48 minutes



B. 16 hours 40 minutes

C. 16 hours 36 minutes

D. 16 hours 45 minutes

Q2 Combined work

John and Mike can complete a piece of work in 10 hours and 15 hours, respectively. How long will it take for them to complete the work together?

A. 6.2 hours

B. 6 hours



C. 5 hours

D. 8 hours

Q3 Combined work multiple

A, B and C can complete a piece of work in 8 days, 16 days and 24 days, respectively. If they work together, how many days will it take to complete a task that is eleven times the original work?

A. 46

B. 48



C. 44

D. 42

Q4 Efficiency days difference

Abhinav is thrice as efficient as Arpan and can finish a piece of work in 34 days less than Arpan. In how many days can Arpan can finish this work?

A. 48

B. 54

C. 51



D. 69

Q5 Men women work

8 men can complete a piece of work in 8 days while 8 women can do it in 12 days. In how many days can 2 women and 4 men complete it?

A. 17 days

B. 16 days

C. 12 days



D. 8 days

Q6 Men women work

If 6 girls and 8 boys can complete a project work in 10 days, whereas 26 girls and 48 boys can do the same work in 2 days, then find the time taken by 10 girls and 30 boys to do the same type of work.

A. 9 days

B. 3 days

C. 4 days



D. 10 days

Q7 Men women work

2 men can complete a piece of work in 18 days while 6 women can do it in 6 days. In how many days can 3 women and 6 men complete it?

A. 4 days



B. 6 days

C. 8 days

D. 1 day

Q8 Men women work

2 men can complete a piece of work in 15 days while 5 women can do it in 14 days. In how many days can 7 women and 3 men complete it?

A. 3 days

B. 5 days



C. 8 days

D. 6 days



Q9 Men women work

8 men can complete a piece of work in 12 days while 4 women can do it in 16 days. In how many days can 8 women and 4 men complete it?

A. 6 days



B. 7 days

C. 9 days

D. 11 days

Q10 Men women work

6 men can complete a piece of work in 10 days while 3 women can do it in 14 days. In how many days can 7 women and 5 men complete it?

A. 6 days

B. 8 days

C. 7 days

D. 4 days

**Q11 Men women work**

4 men can complete a piece of work in 14 days while 4 women can do it in 10 days. In how many days can 5 women and 7 men complete it?

A. 2 days

B. 4 days



C. 3 days

D. 8 days

Q12 Men women work

9 men can complete a piece of work in 20 days while 4 women can do it in 15 days. In how many days can 5 women and 3 men complete it?

A. 9 days

B. 6 days

C. 10 days



D. 5 days

Q13 Men women work

7 men can complete a piece of work in 6 days while 4 women can do it in 14 days. In how many days can 2 women and 2 men complete it?

A. 12 days



B. 9 days

C. 14 days

D. 17 days

Q14 Men women work

6 men can complete a piece of work in 12 days while 4 women can do it in 18 days. In how many days can 2 women and 2 men complete it?

A. 23 days

B. 22 days

C. 20 days

D. 18 days

**Q15 Pot craft combined**

Pinki can craft a designer pot in 900 minutes while Sneha can do the same work in 20 hours. If they work together, the craft work can be completed in:

A. exactly 9 hours

B. exactly 8 hours

C. between 8 hours and 9 hours



D. more than 9 hours

Q16 Third worker efficiency

A can do a piece of work in 12 days. B can do it in 18 days. With the assistance of C, they completed the work in 4 days. C alone can do it in _____ days.

A. 11

B. 9



C. 8

D. 10

Q17 Third worker efficiency

Pravin can do a piece of work in 6 hours. Rishi can do it in 28 hours. With the assistance of Shan, they completed the work in 4 hours. In how many hours can Shan alone do it?

A. 23

B. 20

C. 21



D. 22

Q18 Third worker efficiency

A can do a piece of work in 9 days. B can do it in 9 days. With the assistance of C, they completed the work in 3 days. C alone can do it in _____ days.

A. 8

B. 10

C. 9



D. 11



Q19 Third worker efficiency

A can do a piece of work in 12 days. B can do it in 12 days. With the assistance of C, they completed the work in 3 days. C alone can do it in _____ days.

A. 7

B. 6



C. 5

D. 8

Q20 Third worker efficiency

Pravin can do a piece of work in 8 hours. Rishi can do it in 24 hours. With the assistance of Shan, they completed the work in 3 hours. In how many hours can Shan alone do it?

A. 5

B. 6



C. 8

D. 7

Q21 Third worker efficiency

Nitin can do a piece of work in 7 hours. Pravin can do it in 42 hours. With the assistance of Rishi, they completed the work in 3 hours. In how many hours can Rishi alone do it?

A. 8

B. 6



C. 5

D. 7

Q22 Third worker efficiency

Veer can do a piece of work in 6 hours. Manoj can do it in 24 hours. With the assistance of Anand, they completed the work in 3 hours. In how many hours can Anand alone do it?

A. 8



B. 10

C. 9

D. 7

Q23 Three workers together

Three workers, X, Y and Z, can finish a job in 6 days, 9 days and 18 days, respectively. How long will it take them to finish the job if they all work together?

A. 7 days

B. 3 days



C. 11 days

D. 15 days

Q24 Two persons together

Aarti and Rita can do a job in 8 hours and 12 hours, respectively. In how many hours can both do the job together?

A. 4.4 hours

B. 4.6 hours

C. 4.2 hours

D. 4.8 hours

**Q25 Work with helper**

Arjun can do a piece of work in 4 hours. Kartik can do it in 48 hours. With the assistance of Ishan, they completed the work in 3 hours. In how many hours can Ishan alone do it?

A. 15

B. 16



C. 18

D. 17

Q26 Work with helper

Krish can do a piece of work in 3 hours. Moksh can do it in 24 hours. With the assistance of Nitin, they completed the work in 2 hours. In how many hours can Nitin alone do it?

A. 10

B. 9

C. 8



D. 7

Q27 Work with helper

Arun can do a piece of work in 8 hours. Mahesh can do it in 4 hours. With the assistance of Vijay, they completed the work in 2 hours. In how many hours can Vijay alone do it?

A. 8



B. 9

C. 7

D. 10



Q28 Work with helper

A can do a piece of work in 12 days. B can do it in 20 days. With the assistance of C, they completed the work in 3 days. C alone can do it in _____ days.

A. 6

B. 7

C. 4

D. 5

**Q29 Work with helper**

Amit can do a piece of work in 6 hours. Gopal can do it in 42 hours. With the assistance of Akshay, they completed the work in 3 hours. In how many hours can Akshay alone do it?

A. 9

B. 7



C. 8

D. 6

Q30 men and women work

10 men and 6 women can do a piece of work in 4 days, whereas 12 men and 18 women can do it in 2 days. Find the ratio of the daily work done by a man to that done by a woman, respectively.

A. 4 : 3

B. 3 : 4



C. 2 : 1

D. 1 : 2

Q31 men and women work

5 men can complete a piece of work in 16 days while 2 women can do it in 20 days. In how many days can 4 women and 2 men complete it?

A. 5 days

B. 13 days

C. 4 days

D. 8 days

**Q32 remaining work days**

P can do a piece of work in 48 days, which Q can do in 18 days. Q worked at it for 15 days. P can finish the remaining work in:

A. 8 days



B. 3 days

C. 9 days

D. 6 days

Q33 two workers together

If A can complete a job in 15 days and B can complete the same job in 20 days, then how many days (rounded up to the nearest two decimal places) will it take for both A and B to complete the job together?

A. 9.01 days

B. 8.57 days



C. 6.99 days

D. 7.25 days

Q34 work with helper

A can do a piece of work in 10 days. B can do it in 15 days. With the assistance of C, they completed the work in 2 days. C alone can do it in _____ days.

A. 3



B. 2

C. 4

D. 5

Q35 work with helper

Nitin can do a piece of work in 7 hours. Pravin can do it in 21 hours. With the assistance of Rishi, they completed the work in 3 hours. In how many hours can Rishi alone do it?

A. 7



B. 6

C. 9

D. 8

Q36 work with helper

Manoj can do a piece of work in 8 hours. Anand can do it in 8 hours. With the assistance of Anil, they completed the work in 2 hours. In how many hours can Anil alone do it?

A. 6

B. 5

C. 3

D. 4

**Q37 work with helper**

Kartik can do a piece of work in 4 hours. Ishan can do it in 20 hours. With the assistance of Krish, they completed the work in 2 hours. In how many hours can Krish alone do it?

A. 4

B. 6

C. 5



D. 7



Q38 work with helper

Rishi can do a piece of work in 8 hours. Shan can do it in 12 hours. With the assistance of Veer, they completed the work in 3 hours. In how many hours can Veer alone do it?

A. 9

B. 10

C. 8

D. 7

Q39 work with helper

Anil can do a piece of work in 4 hours. Ashok can do it in 8 hours. With the assistance of Robin, they completed the work in 2 hours. In how many hours can Robin alone do it?

A. 8

B. 10

C. 7

D. 9

Q40 work with helper

Vijay can do a piece of work in 4 hours. Ajay can do it in 28 hours. With the assistance of Amit, they completed the work in 3 hours. In how many hours can Amit alone do it?

A. 21

B. 20

C. 22

D. 23

Q41 Combined work

Kiran can do a certain piece of work in 15 days. Kiran and Garima can together do the same work in 10 days, and Kiran, Garima and Mehak can do the same work together in 9 days. In how many days can Kiran and Mehak do the same work?

A. $\frac{99}{7}$ B. $\frac{88}{8}$ C. $\frac{90}{7}$ D. $\frac{86}{9}$ **Q42** Combined work

Alka can finish a work in 18 days. If Shailja is 20% more efficient than Alka, then in how many days can both of them finish the work together?

A. $7\frac{2}{11}$ B. $8\frac{2}{11}$

C. 8

D. 7



Q43 Combined work

Pankaj and Kamal can do a piece of work in 12 days and 16 days, respectively. In how much time will they together complete the same work?

A. $6\frac{6}{7}$ days



B. $6\frac{4}{5}$ days

C. $5\frac{3}{7}$ days

D. $5\frac{3}{5}$ days

Q44 Combined work

Ravi, Arvind and Vimal can complete a piece of work in 5 days, 6 days and 8 days, respectively. In how many days can all the three together complete the work?

A. $2\frac{2}{59}$ days



B. $3\frac{4}{51}$ days

C. $3\frac{6}{65}$ days

D. $2\frac{3}{47}$ days

Q45 Combined work

Alice can complete a task in 18 days, and Bob can complete the same task in 24 days. If they work together, how long will it take for them to complete the task?

A. $10\frac{2}{7}$



B. 10 days

C. 8 days

D. $9\frac{3}{5}$



Q46 Efficiency work together

Arif is thrice as good as Salman and is therefore able to finish a piece of work in 15 days less than Salman. In how many days can they complete the whole work, working together?

A. $\frac{45}{8}$ days



B. $\frac{35}{6}$ days

C. $\frac{25}{4}$ days

D. $\frac{55}{12}$ days

Q47 Pipes partial tank

Pipe P can fill $\frac{4}{7}$ part of a tank in 16 hours and pipe Q can fill $\frac{5}{7}$ part of the same tank in 20 hours. Both P and Q were kept open for 2 hours, then both were closed. Pipe R alone was then opened and it emptied the water in the tank in 4 hours. Pipes P, Q and R together can fill the empty tank in:

A. 28 hours

B. 29 hours

C. 11 hours



D. 20 hours

Q48 Third worker efficiency

Shifa can do a certain piece of work in 22 days. Shifa and Afiya can together do the same work in 18 days, and Shifa, Afiya and Mariyam can do the same work together in 9 days. In how many days can Shifa and Mariyam do the same work?

A. $\frac{104}{10}$

B. $\frac{108}{12}$

C. $\frac{99}{10}$



D. $\frac{106}{11}$



Blackbook Vocabulary — Now in the App!

Download Now on Google Play

Q49 Third worker efficiency

Anjani can do a certain piece of work in 30 days. Anjani and Khushbu can together do the same work in 24 days, and Anjani, Khushbu and Sushmita can do the same work together in 12 days. In how many days can Anjani and Sushmita do the same work?

A. $\frac{40}{3}$



B. $\frac{38}{5}$

C. $\frac{47}{4}$

D. $\frac{49}{3}$

Q50 Two persons work

A and B together can do a piece of work in 13 days and A alone can do it in 18 days. In how many days can B alone do it?

A. $46\frac{2}{5}$ days

B. $46\frac{3}{5}$ days

C. $46\frac{1}{5}$ days

D. $46\frac{4}{5}$ days

**Q51** Work left early

Prakash and Vinesh can complete a certain piece of work in 15 and 9 days, respectively, They started to work together, and after 5 days, Vinesh left. In how many days will Prakash complete the remaining work?

A. $\frac{14}{11}$

B. $\frac{13}{9}$

C. $\frac{15}{9}$



D. $\frac{15}{10}$



Q52 Work left early

Priya can do a certain piece of work in 30 days. Priya and Varsha can together do the same work in 18 days, and Priya, Varsha and Nisha can do the same work together in 9 days. In how many days can Priya and Nisha do the same work?

A. $\frac{40}{6}$

B. $\frac{52}{4}$

C. $\frac{45}{4}$



D. $\frac{51}{5}$

Q53 Work left early

Abhay and Bharat can complete a certain piece of work in 11 and 9 days, respectively, They started to work together, and after 2 days, Bharat left. In how many days will Abhay complete the remaining work?

A. $\frac{651}{99}$

B. $\frac{646}{101}$

C. $\frac{649}{99}$



D. $\frac{650}{100}$

Q54 Work left early

Prakash and Vinesh can complete a certain piece of work in 17 and 15 days, respectively, They started to work together, and after 4 days, Vinesh left. In how many days will Prakash complete the remaining work?

A. $\frac{2156}{257}$

B. $\frac{2157}{255}$

C. $\frac{2159}{255}$



D. $\frac{2160}{256}$



Q55 Work of two persons

Anjali can do a certain piece of work in 20 days. Anjali and Ayushi can together do the same work in 16 days, and Anjali, Ayushi and Ankita can do the same work together in 10 days. In how many days can Anjali and Ankita do the same work?

A. $\frac{80}{7}$



B. $\frac{78}{9}$

C. $\frac{87}{7}$

D. $\frac{85}{8}$

Q56 Work of two persons

Anjali can do a certain piece of work in 24 days. Anjali and Ayushi can together do the same work in 13 days, and Anjali, Ayushi and Ankita can do the same work together in 8 days. In how many days can Anjali and Ankita do the same work?

A. $\frac{84}{8}$

B. $\frac{81}{7}$

C. $\frac{78}{7}$



D. $\frac{72}{9}$

Q57 Work of two persons

Shifa can do a certain piece of work in 18 days. Shifa and Afiya can together do the same work in 14 days, and Shifa, Afiya and Mariyam can do the same work together in 9 days. In how many days can Shifa and Mariyam do the same work?

A. $\frac{21}{2}$



B. $\frac{14}{4}$

C. $\frac{11}{3}$

D. $\frac{23}{2}$



Q58 Work partial leave

Firoz and Gangadhar can complete a certain piece of work in 18 and 11 days, respectively, They started to work together, and after 5 days, Gangadhar left. In how many days will Firoz complete the remaining work?

A. $\frac{953}{200}$

B. $\frac{954}{198}$ ✓

C. $\frac{957}{198}$

D. $\frac{956}{199}$

Q59 Work partial leave

Hemant and Irfan can complete a certain piece of work in 9 and 14 days, respectively, They started to work together, and after 3 days, Irfan left. In how many days will Hemant complete the remaining work?

A. $\frac{171}{42}$ ✓

B. $\frac{170}{43}$

C. $\frac{173}{44}$

D. $\frac{175}{42}$

Q60 work combinations

Isha can do a certain piece of work in 20 days. Isha and Smriti can together do the same work in 16 days, and Isha, Smriti and Ashlesha can do the same work together in 8 days. In how many days can Isha and Ashlesha do the same work?

A. $\frac{79}{10}$

B. $\frac{89}{9}$

C. $\frac{76}{11}$

D. $\frac{80}{9}$ ✓



Q61 work combinations

Anjali can do a certain piece of work in 16 days. Anjali and Ayushi can together do the same work in 10 days, and Anjali, Ayushi and Ankita can do the same work together in 8 days. In how many days can Anjali and Ankita do the same work?

A. $\frac{83}{9}$

B. $\frac{72}{7}$

C. $\frac{88}{8}$

D. $\frac{80}{7}$

**Q62** work combinations

Isha can do a certain piece of work in 15 days. Isha and Smriti can together do the same work in 11 days, and Isha, Smriti and Ashlesha can do the same work together in 10 days. In how many days can Isha and Ashlesha do the same work?

A. $\frac{62}{7}$

B. $\frac{70}{5}$

C. $\frac{64}{6}$

D. $\frac{66}{5}$

**Q63** work combinations

Anjani can do a certain piece of work in 18 days. Anjani and Khushbu can together do the same work in 14 days, and Anjani, Khushbu and Sushmita can do the same work together in 9 days. In how many days can Anjani and Sushmita do the same work?

A. $\frac{29}{4}$

B. $\frac{20}{3}$

C. $\frac{21}{2}$

D. $\frac{18}{2}$



Q64 work left alone

Abhay and Bharat can complete a certain piece of work in 9 and 11 days, respectively, They started to work together, and after 3 days, Bharat left. In how many days will Abhay complete the remaining work?

A. $\frac{115}{33}$

B. $\frac{117}{35}$

C. $\frac{116}{34}$

D. $\frac{117}{33}$ ✓

Q65 work left alone

Abhay and Bharat can complete a certain piece of work in 17 and 10 days, respectively, They started to work together, and after 3 days, Bharat left. In how many days will Abhay complete the remaining work?

A. $\frac{1513}{170}$ ✓

B. $\frac{1513}{172}$

C. $\frac{1511}{170}$

D. $\frac{1515}{171}$

Q66 work left alone

Jitesh and Kamal can complete a certain piece of work in 7 and 16 days, respectively, They started to work together, and after 2 days, Kamal left. In how many days will Jitesh complete the remaining work?

A. $\frac{233}{58}$

B. $\frac{230}{57}$

C. $\frac{234}{56}$

D. $\frac{231}{56}$ ✓



Q67 work left alone

Jitesh and Kamal can complete a certain piece of work in 18 and 17 days, respectively, They started to work together, and after 5 days, Kamal left. In how many days will Jitesh complete the remaining work?

A. $\frac{2355}{307}$

B. $\frac{2360}{308}$

C. $\frac{2361}{306}$

D. $\frac{2358}{306}$ ✓

Q68 work left alone

Jitesh and Kamal can complete a certain piece of work in 7 and 11 days, respectively, They started to work together, and after 3 days, Kamal left. In how many days will Jitesh complete the remaining work?

A. $\frac{162}{77}$

B. $\frac{161}{77}$ ✓

C. $\frac{161}{79}$

D. $\frac{164}{78}$

Q69 work left alone

Prakash and Vinesh can complete a certain piece of work in 10 and 8 days, respectively, They started to work together, and after 3 days, Vinesh left. In how many days will Prakash complete the remaining work?

A. $\frac{133}{40}$

B. $\frac{130}{40}$ ✓

C. $\frac{131}{41}$

D. $\frac{130}{42}$



Q1 Division remainder

On dividing 346024 by a certain number, the quotient is 2435 and the remainder is 254. Find the divisor.

A. 152

B. 132

C. 142



D. 122



Q1 parallelogram altitudes

PQRS is a parallelogram, $PX \perp SR$ and $RY \perp PS$. If $PQ = 21$ cm, $PX = 8$ cm and $RY = 12$ cm, find PS.

A. 14 cm



B. 15 cm

C. 16 cm

D. 13 cm

Q2 parallelogram area

One side of a parallelogram is 24 cm and the corresponding altitude is 6 cm. Find the area of the parallelogram.

A. 1. 12 cm^2

B. 2. 144 cm^2



C. 3. 120 cm^2

D. 4. 30 cm^2



Geometry

8 Questions • Answer Key

Q1 Isosceles triangle area

Calculate the area of the isosceles triangle with length of equal sides 5 cm and the third side 8 cm.

A. 1. 12 cm^2



B. 2. 6 cm^2

C. 3. 24 cm^2

D. 4. 10 cm^2

Q2 Isosceles triangle area

A triangle has two equal sides of 13 cm each and third side of 10 cm. The area (in cm^2) of the triangle is:

A. 40

B. 60



C. 45

D. 50

Q3 Right triangle area

The sides of a triangle are 7 cm, 24 cm, and 25 cm. What is the area of this triangle?

A. 1. 70 cm^2

B. 2. 96 cm^2

C. 3. 50 cm^2

D. 4. 84 cm^2

**Q4** Right triangle perimeter

If the hypotenuse and base of a right-angled triangle are 65 cm and 60 cm, respectively, find the perimeter of the triangle.

A. 150 cm



B. 100 cm

C. 195 cm

D. 175 cm

Q5 Triangle area

Find the area of a triangle, whose altitude and base are 28 cm and 12 cm, respectively.

A. 1. 168 cm^2



B. 2. 156 cm^2

C. 3. 159 cm^2

D. 4. 164 cm^2

Q6 Triangle perimeter area

If the perimeter of a triangle is doubled, then its area is _____ times the previous area.

A. 4



B. 2.5

C. 2

D. 1.5

Q7 medians area

In $\triangle LMN$, medians MX and NY are perpendicular to each other and intersect at Z . If $MX = 20 \text{ cm}$ and $NY = 30 \text{ cm}$, what is the area of $\triangle LMN$ (in cm^2)?

A. 200

B. 300

C. 400



D. 450



Q8 Equilateral triangle height

The sum of all the three sides of an equilateral triangle is $66\sqrt{3}$ cm. What is the height (in cm) of this triangle?

A. 33



B. $\frac{33}{2}$

C. 22

D. 44



Blackbook Vocabulary — Now in the App!

▶ Download Now on Google Play

generated by rank.qmaths.in

Mensuration

69 Questions • Answer Key

Q1 Cone total surface

Find the total surface area of a right circular cone, if the height and radius of the cone are 63 cm and 16 cm, respectively.

- A. $1. 1692\pi \text{ cm}^2$
- B. $2. 1962\pi \text{ cm}^2$
- C. $3. 1296\pi \text{ cm}^2$ ✓
- D. $4. 1269\pi \text{ cm}^2$

Q2 Cone volume

A water tank is in the shape of a cone with a radius of 5 m and a height of 12 m. How much water can the tank hold when full? (Use $\pi \approx 3.14$).

- A. $1. 314 \text{ m}^3$ ✓
- B. $2. 327 \text{ m}^3$
- C. $3. 424 \text{ m}^3$
- D. $4. 345 \text{ m}^3$

Q3 Cube cut surface ratio

A metallic cube of side 12 cm is cut into 8 equal solid cubes of equal volume. Find the ratio between the surface areas of a cube with a larger edge to a smaller edge.

- A. $4 : 1$ ✓
- B. $1 : 2$
- C. $3 : 1$
- D. $2 : 5$

Q4 Cube surface area

Find the surface area of a cube-shaped box having a side of 7 cm.

- A. $1. 294 \text{ cm}^2$ ✓
- B. $2. 290 \text{ cm}^2$
- C. $3. 147 \text{ cm}^2$
- D. $4. 280 \text{ cm}^2$

Q5 Cube surface area

A gift in the form of a cube, whose side measures 10 cm, has to be wrapped with gift paper, which costs ₹0.05 per cm^2 . Find the cost of the gift wrap.

- A. ₹30 ✓
- B. ₹60
- C. ₹300
- D. ₹600

Q6 Cube surface side

A cube has a surface area of 294 m^2 . What is the length (in cm) of the side of the cube?

- A. 0.7 m
- B. 700 m
- C. 0.7 cm
- D. 700 cm ✓

Q7 Cube volume

The perimeter of one face of a cube is 36 cm. What is its volume?

- A. $1. 729 \text{ cm}^3$ ✓
- B. $2. 314 \text{ cm}^3$
- C. $3. 942 \text{ cm}^3$
- D. $4. 243 \text{ cm}^3$

Q8 Cuboid diagonal

The dimensions of a rectangular solid are $8 \text{ cm} \times 4 \text{ cm} \times 1 \text{ cm}$. What is the length (in cm) of its diagonal?

- A. 15
- B. 10
- C. 13
- D. 9 ✓



Q9 Cuboid surface area

The total surface area of a cuboid is 174 cm^2 . If its length and breadth are 3 cm and 5 cm, respectively, then what is the ratio of its length to its height?

A. 1 : 4

B. 2 : 3

C. 1 : 3



D. 1 : 2

Q10 Cuboid volume

If the perimeter of a cuboid is 96 m, whose length is 12 m and height is 7 m, what is the volume of the cuboid?

A. 1. 430 m^3

B. 2. 440 m^3

C. 3. 420 m^3



D. 4. 415 m^3

Q11 Cuboid volume

A lunch box has a length of 20 cm, a width of 12 cm and a height of 8 cm. Find the volume of the lunch box.

A. 1. 182 cm^3

B. 2. 1820 cm^3

C. 3. 1920 cm^3



D. 4. 192 cm^3

Q12 Cuboid volume height

If the length of cuboid is 8 cm, breadth is 3 cm and the volume of cuboid is 3384 cm^3 , then find the height of cuboid (in cm).

A. 148

B. 141



C. 151

D. 145

Q13 Cuboid volume height

If the length of cuboid is 2 cm, breadth is 7 cm and the volume of cuboid is 5278 cm^3 , then find the height of cuboid (in cm).

A. 367

B. 377



C. 384

D. 372

Q14 Cuboid volume height

If the length of cuboid is 2 cm, breadth is 4 cm and the volume of cuboid is 1712 cm^3 , then find the height of cuboid (in cm).

A. 206

B. 214



C. 209

D. 219

Q15 Cuboid volume height

If the length of cuboid is 44 cm, breadth is 5 cm and the volume of cuboid is 1980 cm^3 , then find the height of cuboid (in cm).

A. 4

B. 14

C. 9



D. 2

Q16 Cylinder percent volume change

If the radius of the base of a right circular cylinder is decreased by 32% and its height is increased by 168%, then what is the percentage increase (closest integer) in its volume?

A. 46%

B. 24%



C. 23%

D. 6%

Q17 Hollow sphere weight

A solid rubber sphere weighs 40 kg when its diameter is 8 cm. Using the same material, a hollow sphere is made with an outer diameter of 16 cm and inner diameter of 12 cm. What is its weight?

A. 185 kg



B. 120 kg

C. 240 kg

D. 80 kg



Q18 Joined cubes painting

Two solid cubes each of volume $8,000 \text{ cm}^3$ are joined end to end. Find the cost of paint the resulting cuboid all around at the rate of ₹25 per 100 cm^2 .

A. ₹1,000



B. ₹1,140

C. ₹1,100

D. ₹1,060

Q19 Melting recasting solids

N solid metallic spherical balls are melted and recast into a cylindrical rod whose radius is 5 times the radius of a spherical ball and height is 8 times the radius of a spherical ball. The value of N is:

A. 175

B. 100

C. 75

D. 150

**Q20** Melting sphere cylinder

Samrudh has a solid metal ball with a diameter of 9 cm. He melts it and uses the material to make a solid cylinder. If the diameter of the cylinder is same as the ball, then what would be the height of the cylinder?

A. 8 cm

B. 12 cm

C. 6 cm



D. 18 cm

Q21 Sphere surface area

Find the surface area of a sphere whose diameter is equal to 24 cm.

A. $1.576\pi \text{ cm}^2$



B. $2.841\pi \text{ cm}^2$

C. $3.1161\pi \text{ cm}^2$

D. $4.839\pi \text{ cm}^2$

Q22 combined solids

A pencil sharpened at both edges is the combination of _____ and _____.

A. rectangle and cylinder

B. cylinders and cones



C. squares and cones

D. rectangle and a cone

Q23 cone curved area

The area of the curved surface of a cone is $195\pi \text{ cm}^2$. If the slant height of the cone is 12 cm, find the radius of the base.

A. 14 cm

B. 15.5 cm

C. 16.25 cm



D. 17 cm

Q24 cone volume

The height of a conical vessel is 7 cm. If its capacity is 6.6 litres of milk. Find the diameter of its base.

A. 21 cm

B. 15 cm

C. 25 cm

D. 30 cm

**Q25** cone volume

The radius of the base of a solid cone is 21 cm and its height is 9 cm. What is the volume of the cone?

A. 1.4158 cm^3



B. 2.5940 cm^3

C. 3.1386 cm^3

D. 4.1980 cm^3

Q26 cube volume side

The volume of a cube is $6,58,503 \text{ cm}^3$. What is twice the length (in cm) of its side?

A. 174



B. 84

C. 86

D. 166

Q27 cuboid surface area

The dimensions of a rectangular solid are $41 \text{ cm} \times 40 \text{ cm} \times 9 \text{ cm}$. What is its surface area (in cm^2)?

A. 4,733

B. 4,738



C. 4,783

D. 4,788



Q28 cuboid surface area

The sum of the length, width and depth of a cuboid is 8 cm and its diagonal is 5 cm. What is its surface area?

- A. 1. 89 cm²
- B. 2. 25 cm²
- C. 3. 39 cm² ✓
- D. 4. 64 cm²

Q29 cuboid volume

A cuboid has dimensions of length 10 cm, width 5 cm and height 8 cm. A cube with side length 5 cm is cut out from one of the faces of the cuboid. What is the remaining volume of the cuboid?

- A. 1. 275 cm³ ✓
- B. 2. 225 cm³
- C. 3. 200 cm³
- D. 4. 250 cm³

Q30 cylinder volume change

If the radius of the base of a right circular cylinder is decreased by 30% and its height is increased by 224%, then what is the percentage increase (closest integer) in its volume?

- A. 59% ✓
- B. 58%
- C. 83%
- D. 70%

Q31 cylinder volume change

If the radius of the base of a right circular cylinder is decreased by 27% and its height is increased by 237%, then what is the percentage increase (closest integer) in its volume?

- A. 87%
- B. 97%
- C. 95%
- D. 80% ✓

Q32 cylinder volume change

If the radius of a cylinder is doubled and the height is halved, then the volume change will be:

- A. 50% increase
- B. 50% decrease
- C. 100% increase ✓
- D. 75% decrease

Q33 cylinder volume change

If the radius of the base of a right circular cylinder is decreased by 24% and its height is increased by 262%, then what is the percentage increase (closest integer) in its volume?

- A. 83%
- B. 137%
- C. 91%
- D. 109% ✓

Q34 cylinder volume change

If the radius of the base of a right circular cylinder is decreased by 46% and its height is increased by 270%, then what is the percentage increase (closest integer) in its volume?

- A. 8% ✓
- B. 19%
- C. 28%
- D. 22%

Q35 cylinder volume change

If the radius of the base of a right circular cylinder is decreased by 20% and its height is increased by 134%, then what is the percentage increase (closest integer) in its volume?

- A. 50% ✓
- B. 52%
- C. 22%
- D. 63%

Q36 melting solid

A solid sphere of diameter 6 cm is melted and then cast into cylindrical wire of radius 0.3 cm. Find the length of the wire.

- A. 65 cm
- B. 4 m ✓
- C. 50 cm
- D. 3 m



Q37 melting solid

A solid metallic hemisphere of radius 5.4 cm is melted and recast into a right circular cylinder of radius 12 cm. What is the height (in cm) of the cylinder?

A. 0.729



B. 0.468

C. 0.325

D. 0.625

Q38 sphere surface area

Find the surface area of a sphere whose diameter is equal to 88 cm.

A. $1.7261\pi \text{ cm}^2$

B. $2.7744\pi \text{ cm}^2$



C. $3.7269\pi \text{ cm}^2$

D. $4.6757\pi \text{ cm}^2$

Q39 sphere surface area

Find the surface area of a sphere whose diameter is equal to 28 cm.

A. $1.1199\pi \text{ cm}^2$

B. $2.131\pi \text{ cm}^2$

C. $3.784\pi \text{ cm}^2$



D. $4.938\pi \text{ cm}^2$

Q40 sphere surface area

Find the surface area of a sphere whose diameter is equal to 84 cm.

A. $1.6539\pi \text{ cm}^2$

B. $2.7035\pi \text{ cm}^2$

C. $3.7056\pi \text{ cm}^2$



D. $4.7733\pi \text{ cm}^2$

Q41 sphere surface area

Find the surface area of a sphere whose diameter is equal to 30 cm.

A. $1.924\pi \text{ cm}^2$

B. $2.1030\pi \text{ cm}^2$

C. $3.900\pi \text{ cm}^2$



D. $4.896\pi \text{ cm}^2$

Q42 Cone curved surface cost

The cost of decorating the curved surface area of a cone is ₹6,270. If its base diameter is 42 cm and slant height is 19 cm, then what is the per cm^2 cost (in ₹) of decoration? (Use $\pi = 22/7$)

A. 9



B. 3

C. 5

D. 7

Q43 Cone surface area

If the diameter of the base of a cone is $\frac{75.36}{\pi}$ cm and its slant height is 88 cm, then what is the total surface area (in cm^2) of the cone?

(Use $\pi = 3.14$)

A. 3768



B. 5763

C. 7536

D. 1884



Q44 Cone surface area

What is the total surface area (correct to two places of decimals) of a right circular cone with height of 8 m and base radius 4 m? (Use $\pi = \frac{22}{7}$ and $\sqrt{5} = 2.34$).

- A. 1. 173.25 m²
- B. 2. 182.36 m²
- C. 3. 167.95 m²
- D. 4. 178.48 m²

**Q45 Cone volume**

Find the volume of a given cone with height of 14 cm and diameter of the circular base of 6 cm. (Use $\pi = \frac{22}{7}$)

- A. 1. 130 cm³
- B. 2. 396 cm³
- C. 3. 132 cm³
- D. 4. 232 cm³

**Q46 Cone volume diameter**

If the ratio of the height to the slant height of a cone is 4 : 5 and its volume is 12936 cm³, then what will be its diameter? (Use value of π as $\frac{22}{7}$)

- A. 42 m
- B. 42 cm
- C. 21 m
- D. 21 cm

**Q47 Cube from diagonal**

Find the volume of a cube whose diagonal is $18\sqrt{3}$ cm long.

- A. 1. 8,235 cm³
- B. 2. 2,538 cm³
- C. 3. 5,832 cm³
- D. 4. 3,258 cm³

**Q48 Cylinder cone volume**

A clay cylinder of height 42 cm is converted into a cone of the same radius as that of the cylinder. If the volume of the cylinder is 52,800 cm³, then the radius (in cm) of the cone is:

(Use $\pi = \frac{22}{7}$)

- A. 24
- B. 22
- C. 18
- D. 20



Q49 Cylinder curved surface

A cylindrical rod has an outer curved surface area of 8800 cm^2 . If the length of the rod is 87 cm, then the outer radius (in cm) of

the rod, correct to two places of decimal, is: $\text{Take } \pi = \frac{22}{7}$

A. 16.09



B. 17.93

C. 18.84

D. 16.24

Q50 Cylinder curved surface

A cylindrical rod has an outer curved surface area of 5600 cm^2 . If the length of the rod is 92 cm, then the outer radius (in cm) of

the rod, correct to two places of decimal, is: $\text{Take } \pi = \frac{22}{7}$

A. 9.68



B. 10.99

C. 12.28

D. 8.38

Q51 Cylinder curved surface

A cylindrical rod has an outer curved surface area of 9900 cm^2 . If the length of the rod is 82 cm, then the outer radius (in cm) of

the rod, correct to two places of decimal, is: $\text{Take } \pi = \frac{22}{7}$

A. 17.55

B. 19.21



C. 20.39

D. 17.09

Q52 Cylinder curved surface

A cylindrical rod has an outer curved surface area of 4500 cm^2 . If the length of the rod is 62 cm, then the outer radius (in cm) of

the rod, correct to two places of decimal, is: $\text{Take } \pi = \frac{22}{7}$

A. 11.63

B. 13.22

C. 11.12

D. 11.55



Q53 Cylinder curved surface

A cylindrical rod has an outer curved surface area of 6200 cm^2 . If the length of the rod is 32 cm, then the outer radius (in cm) of

the rod, correct to two places of decimal, is: $\text{Take } \pi = \frac{22}{7}$

A. 29.64

B. 30.31

C. 30.82



D. 32.46

Q54 Cylinder curved surface

A cylindrical rod has an outer curved surface area of 1900 cm^2 . If the length of the rod is 39 cm, then the outer radius (in cm) of

the rod, correct to two places of decimal, is: $\text{Take } \pi = \frac{22}{7}$

A. 7.75



B. 8.88

C. 7.18

D. 6.27

Q55 Cylinder wire volume

The volume (in cm^3) of a wire of diameter 2 cm and length 98 m is:

$\text{take } \pi = \frac{22}{7}$

A. 31600

B. 27300

C. 30800



D. 29800

Q56 Cylinder wire volume

The volume (in cm^3) of a wire of diameter 10 cm and length 56 m is:

$\text{take } \pi = \frac{22}{7}$

A. 440000



B. 441000

C. 440400

D. 440700



Q57 Hollow sphere weight

A hollow spherical shell is made of a metal of density 3 g/cm³. Its internal and external radius are 15 cm and 18 cm, respectively. What is the weight (in kg) of the shell ?

($take \pi = \frac{22}{7}$)

- A. 32.42
- B. 32.35
- C. 27.888
- D. 30.888

**Q58** Hollow sphere weight

A hollow spherical shell is made of a metal of density 36 g/cm³. Its internal and external radius are 9 cm and 11 cm, respectively. What is the weight (in kg) of the shell ?

($take \pi = \frac{22}{7}$)

- A. 87.816
- B. 92.75
- C. 90.816
- D. 92.52

**Q59** Hollow sphere weight

A hollow spherical shell is made of a metal of density 9 g/cm³. Its internal and external radius are 10 cm and 13 cm, respectively. What is the weight (in kg) of the shell ?

($take \pi = \frac{22}{7}$)

- A. 46.2
- B. 45.144
- C. 46.67
- D. 42.144

**Q60** Hollow sphere weight

A hollow spherical shell is made of a metal of density 21 g/cm³. Its internal and external radius are 16 cm and 17 cm, respectively. What is the weight (in kg) of the shell ?

($take \pi = \frac{22}{7}$)

- A. 71.896
- B. 73.56
- C. 73.66
- D. 68.896



Q61 Hollow sphere weight

A hollow spherical shell is made of a metal of density 36 g/cm^3 . Its internal and external radius are 1 cm and 2 cm, respectively. What is the weight (in kg) of the shell ?

take $\pi = \frac{22}{7}$

A. 2.57

B. 1.056



C. 2.38

D. 1.944

Q62 Hollow spheres melted

8281 hollow spheres of external and internal diameters 1.2 cm and 1 cm, respectively, are melted and recast into a solid sphere. What is the change (in cm^2 rounded off to the nearest whole number) in the external surface area of the original spheres and that of the solid sphere? Take $\pi = \frac{22}{7}$

A. 32654

B. 34663

C. 36436



D. 35456

Q63 Melting recasting solids

A metal cylinder of diameter 24 cm and of length 168 cm is melted to form a cuboid metal object of dimensions $9 \text{ cm} \times 11 \text{ cm} \times 1 \text{ cm}$. The number of cuboid metal objects thus obtained are:

(Use $\pi = \frac{22}{7}$)

A. 867

B. 678

C. 657

D. 768

**Q64** Wire cylinder volume

The volume (in cm^3) of a wire of diameter 28 cm and length 14 m is:

take $\pi = \frac{22}{7}$

A. 862400



B. 861900

C. 861400

D. 862500



Q65 Wire cylinder volume

The volume (in cm^3) of a wire of diameter 10 cm and length 28 m is:

$$\text{take } \pi = \frac{22}{7}$$

- A. 220100
- B. 220500
- C. 221000
- D. 220000

**Q66** Wire cylinder volume

The volume (in cm^3) of a wire of diameter 14 cm and length 30 m is:

$$\text{take } \pi = \frac{22}{7}$$

- A. 461800
- B. 462000
- C. 462700
- D. 462400

**Q67** cone curved area

A birthday cap is in the form of a right circular cone of base radius 6 cm and height 8 cm. Find the area of the paper sheet required to make 15 such caps. (Consider $\pi = 3.14$)

- A. 2862 sq cm
- B. 2286 sq cm
- C. 2826 sq cm
- D. 2682 sq cm

**Q68** cone diameter

Find the diameter of a cone whose volume and height are 3696 cubic units and 18 units, respectively. (Use $\pi = \frac{22}{7}$)

- A. 26 units
- B. 38 units
- C. 28 units
- D. 36 units

**Q69** cuboid volume

The areas of three surfaces of a cuboid are 10 m^2 , 18 m^2 and 20 m^2 . What is the volume (in m^3) of the cuboid?

- A. 48
- B. 36
- C. 60
- D. 56



Mensuration

24 Questions • Answer Key

Q1 Parallelogram area

A parallelogram has a base of 12 cm and a height of 5 cm. What is the area of the parallelogram?

- A. 1. 24 cm²
- B. 2. 48 cm²
- C. 3. 18 cm²
- D. 4. 60 cm² ✓

Q2 Path around rectangle

A rectangular park which is 105 m long and 75 m wide has a grassy walking path 2.5 m wide all around it on the inside. Find the cost of trimming the grass path at ₹18 per sq. m.

- A. ₹15,750 ✓
- B. ₹7,000
- C. ₹18,250
- D. ₹7,875

Q3 Rectangle diagonal perimeter

PQRS is a rectangle. The ratio of the sides PQ and QR is 3 : 4. If the length of the diagonal PR is 10 cm, then what is the perimeter (in cm) of the rectangle?

- A. 30
- B. 28 ✓
- C. 24
- D. 36

Q4 Rectangle perimeter

The length and breadth of a rectangle are 12 cm and 9 cm, respectively. Its perimeter will be:

- A. 42 cm ✓
- B. 6 cm
- C. 21 cm
- D. 10.5 cm

Q5 Rectangle perimeter

A bedsheet has a length of 148 inches and breadth of 104 inches. How much lace will be required to complete the border of the bedsheet?

- A. 548 inches
- B. 504 inches ✓
- C. 495 inches
- D. 480 inches

Q6 Rectangle perimeter area

Find the perimeter of a rectangular garden, whose breadth is two-third of its length and area is 486 m².

- A. 90 m ✓
- B. 75 m
- C. 80 m
- D. 65 m

Q7 Rectangle perimeter area

The area of a rectangular field is 2400 m². If the field is 80 m long, what is its perimeter?

- A. 220 m ✓
- B. 210 m
- C. 110 m
- D. 30 m

Q8 Regular hexagon side

The perimeter of a regular hexagon is 138 cm. How long is each side?

- A. 23 cm ✓
- B. 27.5 cm
- C. 17.25 cm
- D. 11.5 cm

Q9 Right triangle area

What is the area (in cm²) of a right-angled triangle having a hypotenuse of 89 cm and one side measuring 39 cm?

- A. 1560 ✓
- B. 1650
- C. 1260
- D. 1150



Q10 Square area decrease

If the side length of a square decreases from 7 cm to 5 cm, find the percentage decrease in its area. (Rounded off to 2 decimal places.)

A. 48.99%

B. 49.98%

C. 48.98% ✓

D. 58.98%

Q11 Square side increase area

The perimeter of a square is 14 cm. If each side of the square is increased by x cm, its area increases by 120 cm^2 . What is the value of x ?

A. 5

B. 8 ✓

C. 6

D. 7

Q12 Trapezium height

The area of a trapezium is 330 cm^2 , if the lengths of its parallel sides are 24 cm and 20 cm, find the distance between the parallel sides.

A. 20 cm

B. 15 cm ✓

C. 10 cm

D. 25 cm

Q13 Trapezoid area

Ramu's field is in the shape of a trapezoid. If the lengths of its parallel sides are 534 metres and 712 metres, and the distance between the parallel sides is 310 metres, then what is the area (in m^2) of Ramu's field?

A. 1,03,139

B. 1,30,193

C. 1,93,130 ✓

D. 1,91,330

Q14 equilateral triangle perimeter

Find the perimeter of an equilateral triangle with a side length of 6 cm.

A. 9 cm

B. 18 cm ✓

C. 6 cm

D. 36 cm

Q15 rectangle square area

The areas of a rectangular garden and a square garden are equal. If the length and the breadth of the first garden are 32 m and 8 m, then find the perimeter of the square garden.

A. 64 m ✓

B. 56 m

C. 62 m

D. 52 m

Q16 rhombus area

Find the area (in cm^2) of a rhombus whose diagonals are of lengths 47 cm and 48 cm.

A. 1116

B. 1100

C. 1128 ✓

D. 1028

Q17 square perimeter

If the perimeter of the square is 64 cm, find the length of the side of the square.

A. 16 cm ✓

B. 12 cm

C. 14 cm

D. 18 cm

Q18 triangle area

An isosceles right-angled triangle has two equal sides of length 12 cm each. Find its area.

A. 1. 24 cm^2

B. 2. 144 cm^2

C. 3. 48 cm^2

D. 4. 72 cm^2 ✓



Q19 Equilateral triangle area

If y is the length of the median of an equilateral triangle, then find its area.

A. $2y$

B. $\sqrt{3}y$

C. $\frac{y^2}{\sqrt{3}}$



D. $\frac{\sqrt{3}y}{4}$

Q20 Rectangle square diagonal

The length of a rectangular garden is 20 m and its breadth is 8 m. Find the length of the diagonal of a square garden having the same area as that of the rectangular garden.

A. $8\sqrt{10}$ m

B. $4\sqrt{10}$ m

C. $8\sqrt{5}$ m



D. $4\sqrt{5}$ m

Q21 Square perimeter diagonal

P is the perimeter of a square and D is the diagonal of the square, choose the correct relation.

A. $D = \sqrt{2}P$

B. $4P = \sqrt{2}D$

C. $P = 2\sqrt{2}D$



D. $P = 4\sqrt{2}D$

Q22 Triangle base height

The length of the base of a triangle is 1 cm more than the corresponding height. If the area of the triangle is 45 cm^2 , find the length of the base of the triangle.

A. 8 cm

B. 12 cm

C. 10 cm



D. 14 cm

Q23 equilateral triangle area

The perimeter of an equilateral triangle ABC is 10.2 cm. What is the area of the triangle ?

A. $18.9\sqrt{3} \text{ cm}^2$

B. $2.89\sqrt{3} \text{ cm}^2$



C. $1.89\sqrt{3} \text{ cm}^2$

D. $28.9\sqrt{3} \text{ cm}^2$



Q24 hexagon area

The length of one side of a regular hexagon is 4 cm. The area (in cm^2) of the hexagon is:

A. 36.14 cm^2

B. $26\sqrt{5} \text{ cm}^2$

C. $24\sqrt{3} \text{ cm}^2$



D. $32\sqrt{3} \text{ cm}^2$



Number System

2 Questions • Answer Key

Q1 Divisibility by 8 digit

Find the least value of k so that the 8-digit number 198754k8 is divisible by 8.

A. 1

B. 0



C. 4

D. 2

Q2 Divisible by 6 digit

Find the largest possible value of n , for which a 6-digit number 34159n is divisible by 6.

A. 4

B. 2

C. 6

D. 8



Number System

54 Questions • Answer Key

Q1 Divisibility 77

A seven-digit number is divisible by 77. If 91 is added to this number, the resulting number is always divisible by which of the following numbers?

A. 7



B. 77

C. 91

D. 13

Q2 Divisibility by 11

What will be the smallest value of m such that the five-digit number $1m813$ is divisible by 11?

A. 2

B. 1

C. 0



D. 3

Q3 Divisibility by 11

Find the value of $(9K - 5)$ for which the number $35K84$ is divisible by 11.

A. 51

B. 24

C. 49



D. 37

Q4 Divisibility by 11

What is the value of p such that $579p46$ is divisible by 11?

A. 9

B. 8

C. 6

D. 5



Q5 Divisibility by 11

Find the value of $(8K^2 - 5K)$ for which the number $25K583$ is divisible by 11.

A. 48

B. 57



C. 52

D. 62

Q6 Divisibility by 3

For what prime number p in the number $3785p$ so that the number is exactly divisible by 3?

A. 5

B. 1

C. 3

D. 7



Q7 Divisibility by 35

The number divisible by 35 is:

A. 29300

B. 16630

C. 38885



D. 34972

Q8 Divisibility by 5

Which of the following numbers is divisible by 5?

A. 24315



B. 24317

C. 24314

D. 24311

Q9 Divisibility by 6

Which of the following numbers is divisible by 6?

A. 608

B. 534



C. 622

D. 584

Q10 Divisibility by 7

Which of the following numbers is divisible by 7?

a) 171

b) 119

c) 701

d) 387

A. c

B. a

C. d

D. b



Q11 Divisibility by 9

Find the value of A for which the number 7365A2 is divisible by 9.

A. 4



B. 2

C. 3

D. 1

Q12 Divisibility by 9

What is the value of k when the 8-digit number 4345k423 is divisible by 9?

A. 3

B. 2



C. 0

D. 1

Q13 Divisibility by 9

What least value must be given to 'a' so that the number 3a4860115 is exactly divisible by 9?

A. 8



B. 9

C. 5

D. 2

Q14 Divisibility by 9

The digit in place of A that makes 25432A7 divisible by 9 is:

A. 0

B. 3

C. 1

D. 4

**Q15 Divisibility by 9**

If the 7-digit number 689K348 is divisible by 9, then the value of K is:

A. 8

B. 7



C. 6

D. 5

Q16 Divisibility rules

The number 56890065 is completely divisible by only:

A. 11 and 4

B. 6 and 7

C. 9

D. 3

**Q17 Divisible by primes**

Which of the following numbers is exactly divisible by all prime numbers between 1 and 17?

A. 459545

B. 550540

C. 818313

D. 150150

**Q18 Greatest number divisible**

The greatest 5-digit number which is completely divisible by 11, 22, 33, 44 and 55 is:

A. 99880

B. 99680

C. 99860

D. 99660

**Q19 HCF of numbers**

What is the HCF of 24 and 36?

A. 12



B. 6

C. 8

D. 18

Q20 HCF of numbers

The greatest number that exactly divides 324, 1044 and 1548 is:

A. 39

B. 33

C. 36



D. 28



Q21 HCF of numbers

What is the greatest common divisor of 90, 1020 and 2340?

- A. 10
- B. 45
- C. 5
- D. 30

**Q22 HCF of numbers**

Find the HCF of 28, 38 and 68.

- A. 2
- B. 12
- C. 4
- D. 8

**Q23 HCF of numbers**

The HCF of 36, 48 and 172 is _____.

- A. 12
- B. 8
- C. 6
- D. 4

**Q24 HCF of numbers**

Find HCF of 1826 and 2486.

- A. 44
- B. 22
- C. 11
- D. 33

**Q25 HCF power minus one**

The HCF of $2^{18}-1$ and $2^{20}-1$ is _____.

- A. 65
- B. 7
- C. 15
- D. 3

**Q26 HCF remainders**

What is the greatest number that will divide 651 and 1110 leaving the remainders 5 and 8, respectively?

- A. 18
- B. 36
- C. 19
- D. 38

**Q27 HCF remainders**

Which of the following is the greatest number which divides 1658 and 2041 leaving remainders 7 and 9, respectively?

- A. 135
- B. 235
- C. 127
- D. 129

**Q28 HCF remainders**

Find the greatest number which when divided by 1124 and 1868, leaves remainders 17 and 23, respectively.

- A. 369
- B. 41
- C. 143
- D. 82

**Q29 HCF sum numbers**

If the HCF of two numbers is 23 and their sum is 161, the possible numbers CANNOT be:

- A. (23, 138)
- B. (69, 92)
- C. (61, 100)
- D. (46, 115)

**Q30 LCM GCD ratio**

Three numbers are in the ratio of 2 : 5 : 7, and their least common multiple (LCM) is 1050. Determine their greatest common divisor (GCD).

- A. 12
- B. 18
- C. 15
- D. 24



Q31 LCM bells ring together

Six bells start ringing simultaneously and ring at an interval of 2, 4, 6, 8, 10 and 12 seconds, respectively. How many times do they ring together in 50 minutes?

A. 30

B. 15

C. 26

D. 21

Q32 LCM flashing lights

At a traffic signal, a red light flashes two times per minute and a green light flashes six times in five minutes at regular intervals. If both the lights start flashing at the same time, how many times do they flash together in each hour?

A. 28

B. 24

C. 2

D. 20

Q33 LCM ratio numbers

The ratio of three numbers is 5 : 7 : 9 and their LCM is 2835. Find the sum of the greater number and the difference between the first two numbers.

A. 88

B. 99

C. 85

D. 80

Q34 LCM ratio numbers

If the ratio of two numbers is 3 : 4 and their LCM is 72, then the sum of the two numbers is:

A. 24

B. 18

C. 36

D. 42

Q35 LCM remainder number

What is the smallest number that when decreased by 9 is divisible by 24, 33, 42 and 56?

A. 1,875

B. 1,758

C. 1,785

D. 1,857

Q36 LCM remainder number

What is the least number which when divided by 7, 14, 18 and 24 leaves remainder 6 in each case?

A. 510

B. 498

C. 504

D. 512

Q37 LCM smallest number

Calculate the smallest five-digit number divisible by 9, 11 and 21.

A. 10,830

B. 10,395

C. 10,385

D. 10,390

Q38 Largest number divisible

What is the largest 5-digit number exactly divisible by 999?

A. 99,909

B. 99,090

C. 99,900

D. 99,990

Q39 Largest number divisible

What is the largest four-digit number which is exactly divisible by 92?

A. 9,996

B. 9,944

C. 9,936

D. 9,984

Q40 Least number to add

The least number which should be added to 6424 so that the sum is exactly divisible by 8, 9 and 12 is:

A. 56

B. 36

C. 46

D. 26



Q41 divisibility digit

For what value of 'K' is the number 6745K2 divisible by 9?

- A. 3 ✓
- B. 4
- C. 1
- D. 2

Q42 divisibility digit

Find the value of K for which the five-digit number 68K52 is divisible by 13.

- A. 9 ✓
- B. 3
- C. 8
- D. 5

Q43 divisibility rules

Which of the following statements is NOT correct?

- A. A number is divisible by 5 if the digit at unit place is 5 or 0.
- B. A number is divisible by 6 if the sum of its digits is divisible by 3 and the digit at unit place is an even digit.
- C. A number is divisible by 3 or 9 if the sum of digits is divisible by 3 or 9, respectively.
- D. A number is divisible by 11 if the sum of its digits is divisible by 11. ✓

Q44 divisibility rules

Which of the following numbers is divisible by both 4 and 9?

- A. 2345
- B. 3241
- C. 1728 ✓
- D. 4512

Q45 divisibility rules

Which of the following numbers is divisible by 11?

- A. 4836
- B. 5621 ✓
- C. 3273
- D. 2987

Q46 divisibility rules

Which of the following numbers is divisible by 11?

- A. 715896
- B. 715876
- C. 715891 ✓
- D. 715859

Q47 greatest number divisible

Find the greatest four-digit number which is exactly divisible by 39.

- A. 9867
- B. 9906
- C. 9984 ✓
- D. 9945

Q48 multiples count

How many numbers up to 310 are divisible by 8?

- A. 32
- B. 38 ✓
- C. 37
- D. 39

Q49 multiples count

How many two-digit numbers are divisible by 5?

- A. 19
- B. 20
- C. 18 ✓
- D. 17

Q50 nearest divisible

Which of the following numbers nearest to 90561 is divisible by 9?

- A. 90533
- B. 90531 ✓
- C. 90532
- D. 90534



Q51 number added divisible

Find the least number which should be added to 2395 so that the sum is exactly divisible by 3, 4, 5 and 6.

A. 15

B. 55

C. 5



D. 6

Q52 smallest divisible number

What is the smallest 5-digit number exactly divisible by 999?

A. 19,999

B. 10,899

C. 10,989



D. 10,999

Q53 Divisibility algebraic sum

$(73^{53} + 83^{53})$ is divisible by:

A. 154

B. 156



C. 152

D. 150

Q54 Remainder power divisor

$97^{83} - 1$ when divided by 96 would leave a reminder

A. 3



B. 1

C. 2

D. 0



Blackbook Vocabulary — Now in the App!

Download Now on Google Play

Number System

47 Questions • Answer Key

Q1 HCF LCM basic

Find the HCF of 105 and 120.

- A. 45
- B. 35
- C. 56
- D. 15

**Q2** HCF LCM basic

The LCM of 148 and 185 is ____.

- A. 37
- B. 87
- C. 940
- D. 740

**Q3** HCF LCM product

The product of two whole numbers is 1550, and their LCM is 5. Find the HCF.

- A. 150
- B. 155
- C. 300
- D. 310

**Q4** HCF LCM product

The HCF and LCM of two natural numbers are 12 and 72, respectively. What is the average of the two numbers if one of the numbers is 24?

- A. 36
- B. 60
- C. 12
- D. 30

**Q5** HCF basic

Find the greatest number which will exactly divide 2610, 2900 and 3190.

- A. 305
- B. 580
- C. 290
- D. 145

**Q6** HCF basic

The highest common factor of 363, 495, and 561 is N. The digit sum of N is:

- A. 7
- B. 5
- C. 4
- D. 6

**Q7** HCF basic

The HCF of 36, 45 and 54 is ____.

- A. 18
- B. 12
- C. 24
- D. 9

**Q8** HCF grouping

A gardener has 1826 red flowers and 2486 yellow flowers. He wants to arrange them into the largest possible equal groups such that each group has the same number of red and yellow flowers. What is the maximum number of flowers in each group?

- A. 33
- B. 11
- C. 10
- D. 22

**Q9** HCF packing

A vendor has 120 kg rice of one kind, 160 kg of another kind and 210 kg of a third kind. He wants to sell the rice by filling the three kinds of rice in bags of equal capacity. What should be the greatest capacity of such a bag?

- A. 24 kg
- B. 10 kg
- C. 15 kg
- D. 12 kg



Q10 HCF product

The product of two numbers is 5292 and their H.C.F. is 21. The number of such pairs is:

A. 1

B. 4

C. 2



D. 3

Q11 HCF ratio

Two numbers are in the ratio 7 : 8. If the HCF is 4, find the greater number.

A. 56

B. 32



C. 8

D. 28

Q12 HCF remainders

Find the largest number which divides 436, 530, 624 and 718, leaving 13 as the remainder in each case.

A. 19

B. 43

C. 47



D. 29

Q13 HCF sum pairs

How many pairs of positive integers p, q exist such that the HCF of p, q is 37 and the sum of p and q is 1961?

A. 54

B. 26



C. 28

D. 53

Q14 HCF with remainder

Find the largest number which divides 203, 359, 437 and 593 leaving remainder 8 in each case.

A. 23

B. 39



C. 12

D. 47

Q15 HCF with remainder

What is the greatest number which, when it divides 2987, 3755 and 4331, leaves a remainder of 11 in each case?

A. 96



B. 94

C. 90

D. 92

Q16 HCF with remainders

What is the greatest number that will divide 446 and 487, leaving remainders 9 and 12, respectively?

A. 23

B. 25

C. 22

D. 19

**Q17 LCM HCF numbers**

The least common multiple of two numbers is 364 and their greatest common factor is 26. If one of the numbers is 26, then find the other number.

A. 364



B. 52

C. 26

D. 104

Q18 LCM HCF remainders

What is the smallest possible number which when divided by 33, 56 and 84, leaves 6, 29 and 57 as the remainders, respectively?

A. 1848

B. 1821



C. 1892

D. 1875

Q19 LCM HCF remainders

Find the least possible number which when divided by 36, 49, 54 or 70 leaves remainders of 19, 32, 37 and 53, respectively.

A. 26,441

B. 26,446

C. 26,443



D. 26,447



Q20 LCM HCF remainders

Find the LCM of 84, 126 and 210.

A. 630

B. 420

C. 1260



D. 210

Q21 LCM HCF remainders

What is the greatest number that when divides 718, 1085 and 1179 leaves remainders 5, 4 and 6, respectively?

A. 25

B. 23



C. 19

D. 17

Q22 LCM HCF remainders

What is the greatest number which when divides 1128, 1537 and 1834 leaves remainders 7, 3 and 5, respectively?

A. 67

B. 59



C. 43

D. 54

Q23 LCM basic

Find the LCM of 10, 7 and 4.

A. 280

B. 7

C. 140



D. 1

Q24 LCM bells

Seven bells ring at intervals of 2, 3, 4, 6, 8, 9 and 12 minutes, respectively. They started ringing simultaneously at 7:10 in the morning. What will be the next time when they all ring simultaneously?

A. 8.26 a.m.

B. 8.24 a.m.

C. 8.20 a.m.

D. 8.22 a.m.

**Q25 LCM bells**

Three bells ring at intervals of 12 minutes, 18 minutes, and 24 minutes, respectively. If they all ring together at 12:00 p.m., In how many minutes will they all ring together again?

A. 108

B. 6

C. 72



D. 36

Q26 LCM chimes

Four chimes ring simultaneously at 5:30 a.m. After that, they ring at the intervals of 15 seconds, 20 seconds, 25 seconds and 30 seconds, respectively. How many times will these chimes ring together till 8:15 a.m., including at 5:30 a.m.?

A. 34



B. 32

C. 33

D. 31

Q27 LCM decimals

Find the LCM of 0.24, 0.36 and 0.48.

A. 1.44



B. 1.80

C. 1.96

D. 1.20

Q28 LCM expression

If the least common multiple of 85 and 255 can be expressed as $85R + 255$, then the value of R is:

A. 0



B. 6

C. 10

D. 14

Q29 LCM largest number

Find the greatest 5-digit number that is exactly divisible by 15, 18, 21.

A. 99660

B. 98910

C. 99999

D. 99540



Q30 LCM largest number

Find the greatest number of four digits which is divisible by 10, 20, 40 and 75.

- A. 9500
- B. 9400
- C. 9600
- D. 9999

**Q31 LCM meeting time**

Three friends are exercising together. The first friend runs a lap in 12 minutes, the second in 18 minutes, and the third in 24 minutes. If they all start running together, after how many minutes will they all finish a lap together again?

- A. 82 mins
- B. 32 mins
- C. 92 mins
- D. 72 mins

**Q32 LCM of numbers**

Find the LCM of 12, 40, 50 and 78.

- A. 9200
- B. 3900
- C. 7800
- D. 15600

**Q33 LCM prime numbers**

The LCM of two prime numbers K and P (where $K > P$) is 667. Find the value of $3P + K$.

- A. 108
- B. 98
- C. 128
- D. 88

**Q34 LCM ratio**

Two numbers X and Y are in ratio as 8 : 13. The LCM of these two numbers is 832. How much the value of Y is more than X?

- A. 30
- B. 50
- C. 45
- D. 40

**Q35 LCM ratio**

The LCM of two numbers is 72. Their ratio is 3 : 4. Find the sum of the numbers.

- A. 40
- B. 42
- C. 44
- D. 38

**Q36 LCM ratio numbers**

The LCM of three numbers is 2400. If the numbers are in the ratio of 3 : 4 : 5, find the greatest number among them.

- A. 200
- B. 160
- C. 250
- D. 120

**Q37 LCM ratio numbers**

The LCM of two numbers is 315. If the numbers are in the ratio 7 : 9, then the sum of the numbers is ____.

- A. 100
- B. 90
- C. 70
- D. 80

**Q38 LCM remainder same**

The smallest number which, when divided by 3, 5 and 7 leaves a remainder of 5 in each case, is:

- A. 115
- B. 95
- C. 110
- D. 100

**Q39 LCM remainders**

The least multiple of 11, which leaves a remainder of 8, when divided by 5, 3, 18 and 20 is:

- A. 908
- B. 1628
- C. 548
- D. 1088



Q40 LCM remainders

Find the least number, which, when divided by 20, 25, 35 and 40 leaves remainders 14, 19, 29 and 34, respectively.

- A. 1238
- B. 1389
- C. 1498
- D. 1394

**Q41 LCM restock**

A fruit vendor restocks apples every 4 days and bananas every 6 days. If he restocks both fruits today, after how many days will he restock both apples and bananas on the same day again?

- A. 8 days
- B. 12 days
- C. 10 days
- D. 16 days

**Q42 LCM smallest number**

The smallest number which when diminished by 5, is divisible by 16, 18, 24 and 26 is ____.

- A. 1879
- B. 1877
- C. 1887
- D. 1872

**Q43 LCM with remainder**

What is the smallest number which when divided by 36, 45 and 54, gives a remainder of 3 each time?

- A. 537
- B. 529
- C. 547
- D. 543

**Q44 LCM with remainders**

The smallest number which, when divided by 36 and 45 leaves remainders 8 and 17, respectively, is:

- A. 152
- B. 172
- C. 163
- D. 171

**Q45 LCM with remainders**

What is the greatest four digit number which when divided by 6, 20, 33 and 66, leaves 2, 16, 29 and 62 as remainders, respectively?

- A. 9904
- B. 9896
- C. 9236
- D. 9698

**Q46 LCM of numbers**

The difference of two numbers is $\frac{1}{5}$ of their sum, and their sum is 45. Find the LCM.

- A. 27
- B. 45
- C. 36
- D. 54

**Q47 compare fractions**

Which of the following numbers is the greatest of all?

- A. $0.\overline{07}$
- B. $0.\overline{7}$
- C. $0.\overline{7}$
- D. $0.0\overline{7}$

