



THE MATH HUB

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MIXED ONE-PAPER BASIC MATH MOCK TESTS

250 FULLY SOLVED MCQs

PPSC, FPSC & ONE PAPER EXAMS

5 Mixed Mock Tests • 50 MCQs Each • Immediate Mathematical Solutions

Arithmetic • Algebra • Geometry • Statistics • Probability • Logical / Analytical Ability

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MIXED ONE-PAPER BASIC MATH MOCK TESTS | 250 FULLY SOLVED MCQs

How the Five Mock Tests Are Structured

5 complete mixed sets

Each test contains 50 MCQs drawn across the full Basic Math / General Ability syllabus used in competitive and one-paper preparation.

Immediate solution

Every MCQ is followed by compact mathematical working so that speed and method are learned together.

Coverage

Percentages, ratios, averages, fractions, number system, commercial arithmetic, work/rate, algebra, equations, series, geometry, statistics, probability and reasoning.

Exam method

Prefer the shortest mathematically valid route; avoid unnecessary long calculations.

MOCK TEST 1 | 50 MIXED BASIC MATH MCQs

MCQ 1

A sum of 80 is divided in the ratio 3 : 5. Find the smaller first share.

- A. 30 B. 50
C. 10 D. 40

Solution

$$3 : 5 \Rightarrow 3 + 5 = 8 \text{ parts}$$

$$1 \text{ part} = \frac{80}{8} = 10$$

$$\text{Required share} = 3 \times 10 = 30$$

Final Answer

30

MCQ 2

Evaluate $2^3 \times 2^2$.

- A. 12 B. 32
C. 64 D. 2

Solution

$$2^3 \times 2^2 = 2^{3+2} = 2^5 \\ = 32$$

Final Answer

32

MCQ 3

Find 10% of 240.

- A. 14 B. 12
C. 34 D. 24

Solution

$$10\% \text{ of } 240 = \frac{10}{100} \times 240 \\ = 24$$

Final Answer

24

MCQ 4

Find the area of a rectangle of length 10 cm and width 6 cm.

- A. 60 cm^2 B. 70 cm^2
C. 32 cm^2 D. 16 cm^2

Solution

$$A = l \times w \\ = 10 \times 6 = 60 \text{ cm}^2$$

Final Answer

60 cm^2

MCQ 5

Find the mean of 3, 5, 7, 9, 11.

- A. 6 B. 8
C. 11 D. 7

Solution

$$\bar{x} = \frac{3 + 5 + 7 + 9 + 11}{5} \\ = \frac{35}{5} = 7$$

Final Answer

7

MCQ 6

A bag contains 4 red and 3 blue balls. One ball is drawn at random. Find the probability that it is red.

- A. $\frac{1}{2}$ B. $\frac{4}{7}$
C. $\frac{3}{7}$ D. $\frac{1}{7}$

Solution

$$P(\text{red}) = \frac{\text{red outcomes}}{\text{total outcomes}} \\ = \frac{4}{7} = \frac{4}{7}$$

Final Answer

$\frac{4}{7}$

MCQ 7

A vehicle travels at 40 km/h for 2 hours. Find the distance covered.

- A. 80 km B. 78 km
C. 42 km D. 120 km

Solution

$$D = S \times T \\ = 40 \times 2 = 80 \text{ km}$$

Final Answer

80 km

MCQ 8

Find the simple interest on Rs. 1000 at 5% per annum for 2 years.

- A. Rs. 1100 B. Rs. 100
C. Rs. 1 D. Rs. 200

Solution

$$SI = \frac{PRT}{100}$$

$$= \frac{1000 \times 5 \times 2}{100} = 100$$

Final Answer

Rs. 100

MCQ 9

Two angles of a triangle are 40° and 60° . Find the third angle.

- A. 100° B. 80°
C. 11° D. 10°

Solution

$$\angle A + \angle B + \angle C = 180^\circ$$

$$\angle C = 180^\circ - 40^\circ - 60^\circ = 80^\circ$$

Final Answer 80° **MCQ 10**

Find the area of a rectangle of length 8 cm and width 5 cm.

- A. 26 cm^2 B. 40 cm^2
C. 13 cm^2 D. 48 cm^2

Solution

$$A = l \times w$$

$$= 8 \times 5 = 40 \text{ cm}^2$$

Final Answer 40 cm^2 **MCQ 11**

A candidate is 10th from the left and 15th from the right in a row. How many candidates are in the row?

- A. 5 B. 24
C. 25 D. 26

Solution

$$N = L + R - 1$$

$$= 10 + 15 - 1 = 24$$

Final Answer

24

MCQ 12

Calculate $\frac{2}{3} + \frac{1}{6}$.

- A. $\frac{1}{2}$ B. 1
C. $\frac{1}{3}$ D. $\frac{5}{6}$

Solution

$$\frac{2}{3} + \frac{1}{6} = \frac{4}{6} + \frac{1}{6}$$

$$= \frac{5}{6} = \frac{5}{6}$$

Final Answer $\frac{5}{6}$ **MCQ 13**

Calculate $\frac{3}{4} + \frac{1}{8}$.

- A. 1 B. $\frac{5}{8}$
C. $\frac{1}{3}$ D. $\frac{7}{8}$

Solution

$$\frac{3}{4} + \frac{1}{8} = \frac{6}{8} + \frac{1}{8}$$

$$= \frac{7}{8} = \frac{7}{8}$$

Final Answer $\frac{7}{8}$ **MCQ 14**

A can finish a job in 12 days and B in 18 days. How long will they take together?

- A. $\frac{41}{5}$ days B. 6 days
C. $\frac{36}{5}$ days D. 15 days

Solution

$$\text{Combined rate} = \frac{1}{12} + \frac{1}{18} = \frac{30}{216}$$

$$T = \frac{216}{30} = \frac{36}{5} \text{ days}$$

Final Answer $\frac{36}{5}$ days

MCQ 15Solve $x^2 - 5x + 4 = 0$.**A.** 1, 4**B.** 4, 5**C.** -1, -4**D.** 1, -4**Solution**

$$x^2 - 5x + 4 = 0$$

$$(x - 1)(x - 4) = 0$$

$$x = 1 \quad \text{or} \quad x = 4$$

Final Answer $x = 1, 4$ **MCQ 16**Evaluate $18 \div 6 + 3 \times 2$.**A.** 6**B.** 9**C.** 12**D.** 4**Solution**

$$18 \div 6 + 3 \times 2$$

$$= 3 + 6 = 9$$

Final Answer

9

MCQ 17

An article costs Rs. 500. It is sold at a profit of 10%. Find the selling price.

A. Rs. 550**B.** Rs. 650**C.** Rs. 510**D.** Rs. 450**Solution**

$$SP = CP \left(1 + \frac{10}{100} \right)$$

$$= 500 \times \frac{110}{100} = 550$$

Final Answer

Rs. 550

MCQ 18Solve $x^2 - 7x + 10 = 0$.**A.** 2, -5**B.** -2, -5**C.** 2, 5**D.** 5, 6**Solution**

$$x^2 - 7x + 10 = 0$$

$$(x - 2)(x - 5) = 0$$

$$x = 2 \quad \text{or} \quad x = 5$$

Final Answer $x = 2, 5$ **MCQ 19**

Two varieties costing Rs. 25 and Rs. 45 per unit are mixed to obtain a mean price of Rs. 33. Find the ratio of lower-priced to higher-priced variety.

A. 5 : 1**B.** 3 : 2**C.** 1 : 1**D.** 2 : 3**Solution**

$$\text{Lower : Higher} = (45 - 33) : (33 - 25)$$

$$= 12 : 8 = 3 : 2$$

Final Answer

3 : 2

MCQ 20

A vehicle travels at 45 km/h for 3 hours. Find the distance covered.

A. 135 km**B.** 48 km**C.** 132 km**D.** 180 km**Solution**

$$D = S \times T$$

$$= 45 \times 3 = 135 \text{ km}$$

Final Answer

135 km

MCQ 21Solve $3x + 5 = 29$.**A.** 9**B.** 8**C.** 7**D.** 29**Solution**

$$3x + 5 = 29$$

$$3x = 29 - 5 = 24$$

$$x = \frac{24}{3} = 8$$

Final Answer $x = 8$ **MCQ 22**

An article costs Rs. 800. It is sold at a profit of 15%. Find the selling price.

A. Rs. 1020**B.** Rs. 680**C.** Rs. 815**D.** Rs. 920**Solution**

$$SP = CP \left(1 + \frac{15}{100} \right)$$

$$= 800 \times \frac{115}{100} = 920$$

Final Answer

Rs. 920

MCQ 23

A sum of 60 is divided in the ratio 2 : 3. Find the smaller first share.

- A. 13 B. 12
C. 36 D. 24

Solution

$$2 : 3 \Rightarrow 2 + 3 = 5 \text{ parts}$$

$$1 \text{ part} = \frac{60}{5} = 12$$

$$\text{Required share} = 2 \times 12 = 24$$

Final Answer

24

MCQ 24

Find 12% of 250.

- A. 20 B. 30
C. 40 D. 15

Solution

$$\begin{aligned} 12\% \text{ of } 250 &= \frac{12}{100} \times 250 \\ &= 30 \end{aligned}$$

Final Answer

30

MCQ 25

Evaluate $24 \div 8 + 4 \times 2$.

- A. 4 B. 14
C. 11 D. 7

Solution

$$\begin{aligned} 24 \div 8 + 4 \times 2 \\ = 3 + 8 = 11 \end{aligned}$$

Final Answer

11

MCQ 26

If $n(A) = 25$, $n(B) = 20$, and $n(A \cap B) = 8$, find $n(A \cup B)$.

- A. 8 B. 37
C. 45 D. 53

Solution

$$\begin{aligned} n(A \cup B) &= n(A) + n(B) - n(A \cap B) \\ &= 25 + 20 - 8 = 37 \end{aligned}$$

Final Answer

37

MCQ 27

If $n(A) = 20$, $n(B) = 15$, and $n(A \cap B) = 5$, find $n(A \cup B)$.

- A. 30 B. 40
C. 5 D. 35

Solution

$$\begin{aligned} n(A \cup B) &= n(A) + n(B) - n(A \cap B) \\ &= 20 + 15 - 5 = 30 \end{aligned}$$

Final Answer

30

MCQ 28

Solve $2x + 3 = 17$.

- A. 6 B. 17
C. 8 D. 7

Solution

$$\begin{aligned} 2x + 3 &= 17 \\ 2x &= 17 - 3 = 14 \\ x &= \frac{14}{2} = 7 \end{aligned}$$

Final Answer $x = 7$ **MCQ 29**

A can finish a job in 10 days and B in 15 days. How long will they take together?

- A. $\frac{25}{2}$ days B. 6 days
C. 5 days D. 7 days

Solution

$$\begin{aligned} \text{Combined rate} &= \frac{1}{10} + \frac{1}{15} = \frac{25}{150} \\ T &= \frac{150}{25} = 6 \text{ days} \end{aligned}$$

Final Answer

6 days

MCQ 30

Find the next term: 2, 5, 8, 11, 14, ?

- A. 20 B. 17
C. 28 D. 14

Solution

$$\begin{aligned} 5 - 2 &= 3, \quad 8 - 5 = 3 \\ 14 + 3 &= 17 \end{aligned}$$

Final Answer

17

MCQ 31

A invests Rs. 20000 and B invests Rs. 30000 for the same period. If the profit is Rs. 5000, find A's share.

- A. Rs. 3000 B. Rs. 1000
C. Rs. 1001 D. Rs. 2000

Solution

$$A : B = 20000 : 30000 = 2 : 3$$

$$\text{A's share} = 5000 \times \frac{2}{5} = 2000$$

Final Answer

Rs. 2000

MCQ 32

Two varieties costing Rs. 20 and Rs. 40 per unit are mixed to obtain a mean price of Rs. 28. Find the ratio of lower-priced to higher-priced variety.

- A. 2 : 3 B. 3 : 2
C. 5 : 1 D. 1 : 1

Solution

$$\text{Lower : Higher} = (40 - 28) : (28 - 20)$$

$$= 12 : 8 = 3 : 2$$

Final Answer

3 : 2

MCQ 33

Evaluate $3x + 5$ for $x = 2$.

- A. 9 B. 11
C. 8 D. 7

Solution

$$3x + 5 \text{ at } x = 2$$

$$= 3(2) + 5 = 6 + 5 = 11$$

Final Answer

11

MCQ 34

A invests Rs. 25000 and B invests Rs. 35000 for the same period. If the profit is Rs. 13200, find A's share.

- A. Rs. 1100 B. Rs. 7700
C. Rs. 6600 D. Rs. 5500

Solution

$$A : B = 25000 : 35000 = 5 : 7$$

$$\text{A's share} = 13200 \times \frac{5}{12} = 5500$$

Final Answer

Rs. 5500

MCQ 35

Evaluate $3^2 \times 3^3$.

- A. 36 B. 243
C. 729 D. 0.3333333333333333

Solution

$$3^2 \times 3^3 = 3^{2+3} = 3^5$$

$$= 243$$

Final Answer

243

MCQ 36

If 5 items cost Rs. 350, what is the cost of 9 items at the same rate?

- A. Rs. 700 B. Rs. 350
C. Rs. 630 D. Rs. 560

Solution

$$1 \text{ unit cost} = \frac{350}{5} = 70$$

$$9 \text{ units cost} = 70 \times 9 = 630$$

Final Answer

Rs. 630

MCQ 37

Find the HCF of 24 and 36.

- A. 60 B. 12
C. 6 D. 24

Solution

$$24 = 12 \times 2, \quad 36 = 12 \times 3$$

$$\text{HCF}(24, 36) = 12$$

Final Answer

12

MCQ 38

Two angles of a triangle are 50° and 70° . Find the third angle.

- A. 60° B. 30°
C. 31° D. 120°

Solution

$$\angle A + \angle B + \angle C = 180^\circ$$

$$\angle C = 180^\circ - 50^\circ - 70^\circ = 60^\circ$$

Final Answer 60°

MCQ 39

Find the simple interest on Rs. 1500 at 6% per annum for 3 years.

- A. Rs. 120 B. Rs. 1770
C. Rs. 420 D. Rs. 270

Solution

$$SI = \frac{PRT}{100}$$

$$= \frac{1500 \times 6 \times 3}{100} = 270$$

Final Answer

Rs. 270

MCQ 40

A candidate is 8th from the left and 12th from the right in a row. How many candidates are in the row?

- A. 21 B. 19
C. 4 D. 20

Solution

$$N = L + R - 1$$

$$= 8 + 12 - 1 = 19$$

Final Answer

19

MCQ 41

Find the next term: 5, 9, 13, 17, 21, ?.

- A. 25 B. 42
C. 29 D. 21

Solution

$$9 - 5 = 4, \quad 13 - 9 = 4$$

$$21 + 4 = 25$$

Final Answer

25

MCQ 42

If 4 items cost Rs. 240, what is the cost of 7 items at the same rate?

- A. Rs. 420 B. Rs. 240
C. Rs. 360 D. Rs. 480

Solution

$$1 \text{ unit cost} = \frac{240}{4} = 60$$

$$7 \text{ units cost} = 60 \times 7 = 420$$

Final Answer

Rs. 420

MCQ 43

Find the HCF of 18 and 30.

- A. 12 B. 6
C. 3 D. 48

Solution

$$18 = 6 \times 3, \quad 30 = 6 \times 5$$

$$\text{HCF}(18, 30) = 6$$

Final Answer

6

MCQ 44

The average of 7, 10, 13 and x is 11. Find x .

- A. 13 B. 11
C. 16 D. 19

Solution

$$\text{Total} = 11 \times 4 = 44$$

$$x = 44 - (7 + 10 + 13)$$

$$x = 16$$

Final Answer

16

MCQ 45

The ages of two persons are in the ratio 2 : 3 and their total age is 40 years. Find the younger age.

- A. 21 years B. 8 years
C. 24 years D. 16 years

Solution

$$\text{Age ratio} = 2 : 3, \quad \text{Total} = 40$$

$$1 \text{ part} = \frac{40}{5} = 8$$

$$\text{Younger age} = 2 \times 8 = 16$$

Final Answer

16 years

MCQ 46

The ages of two persons are in the ratio 3 : 5 and their total age is 56 years. Find the younger age.

- A. 35 years B. 21 years
C. 7 years D. 26 years

Solution

$$\text{Age ratio} = 3 : 5, \quad \text{Total} = 56$$

$$1 \text{ part} = \frac{56}{8} = 7$$

$$\text{Younger age} = 3 \times 7 = 21$$

Final Answer

21 years

MCQ 47

The average of 6, 9, 12 and x is 10. Find x .

- A. 15 B. 18
C. 12 D. 10

Solution

$$\text{Total} = 10 \times 4 = 40$$

$$x = 40 - (6 + 9 + 12)$$

$$x = 15$$

Final Answer

15

MCQ 48

Evaluate $4x + 2$ for $x = 3$.

- A. 5 B. 14
C. 6 D. 10

Solution

$$4x + 2 \quad \text{at} \quad x = 3$$

$$= 4(3) + 2 = 12 + 2 = 14$$

Final Answer

14

MCQ 49

Find the mean of 2, 4, 6, 8, 10.

- A. 5 B. 6
C. 10 D. 7

Solution

$$\begin{aligned} \bar{x} &= \frac{2 + 4 + 6 + 8 + 10}{5} \\ &= \frac{30}{5} = 6 \end{aligned}$$

Final Answer

6

MCQ 50

A bag contains 3 red and 2 blue balls. One ball is drawn at random. Find the probability that it is red.

- A. $\frac{1}{2}$ B. $\frac{2}{5}$
C. $\frac{1}{5}$ D. $\frac{3}{5}$

Solution

$$\begin{aligned} P(\text{red}) &= \frac{\text{red outcomes}}{\text{total outcomes}} \\ &= \frac{3}{5} = \frac{3}{5} \end{aligned}$$

Final Answer $\frac{3}{5}$

MOCK TEST 2 | 50 MIXED BASIC MATH MCQs

MCQ 51

Evaluate $2x + 7$ for $x = 4$.

- A. 13 B. 9
C. 15 D. 11

Solution

$$\begin{aligned} 2x + 7 & \text{ at } x = 4 \\ &= 2(4) + 7 = 8 + 7 = 15 \end{aligned}$$

Final Answer

15

MCQ 52

If 6 items cost Rs. 480, what is the cost of 10 items at the same rate?

- A. Rs. 880 B. Rs. 800
C. Rs. 720 D. Rs. 480

Solution

$$\begin{aligned} 1 \text{ unit cost} &= \frac{480}{6} = 80 \\ 10 \text{ units cost} &= 80 \times 10 = 800 \end{aligned}$$

Final Answer

Rs. 800

MCQ 53

A invests Rs. 30000 and B invests Rs. 45000 for the same period. If the profit is Rs. 6000, find A's share.

- A. Rs. 1200 B. Rs. 3600
C. Rs. 1201 D. Rs. 2400

Solution

$$\begin{aligned} A : B &= 30000 : 45000 = 2 : 3 \\ A's \text{ share} &= 6000 \times \frac{2}{5} = 2400 \end{aligned}$$

Final Answer

Rs. 2400

MCQ 54

A invests Rs. 40000 and B invests Rs. 50000 for the same period. If the profit is Rs. 11700, find A's share.

- A. Rs. 1300 B. Rs. 5200
C. Rs. 6500 D. Rs. 1301

Solution

$$\begin{aligned} A : B &= 40000 : 50000 = 4 : 5 \\ A's \text{ share} &= 11700 \times \frac{4}{9} = 5200 \end{aligned}$$

Final Answer

Rs. 5200

MCQ 55

Solve $5x + 2 = 32$.

- A. 32 B. 6
C. 5 D. 7

Solution

$$\begin{aligned} 5x + 2 &= 32 \\ 5x &= 32 - 2 = 30 \\ x &= \frac{30}{5} = 6 \end{aligned}$$

Final Answer

$x = 6$

MCQ 56

Find the mean of 4, 6, 8, 10, 12.

- A. 7 B. 12
C. 8 D. 9

Solution

$$\begin{aligned} \bar{x} &= \frac{4 + 6 + 8 + 10 + 12}{5} \\ &= \frac{40}{5} = 8 \end{aligned}$$

Final Answer

8

MCQ 57

A candidate is 15th from the left and 20th from the right in a row. How many candidates are in the row?

- A. 34 B. 5
C. 36 D. 35

Solution

$$\begin{aligned} N &= L + R - 1 \\ &= 15 + 20 - 1 = 34 \end{aligned}$$

Final Answer

34

MCQ 58Solve $x^2 - 11x + 28 = 0$.**A.** -4, -7 **B.** 4, 7**C.** 4, -7 **D.** 7, 8**Solution**

$$x^2 - 11x + 28 = 0$$

$$(x - 4)(x - 7) = 0$$

$$x = 4 \quad \text{or} \quad x = 7$$

Final Answer $x = 4, 7$ **MCQ 59**

Find 15% of 320.

A. 24 **B.** 58**C.** 48 **D.** 38**Solution**

$$\begin{aligned} 15\% \text{ of } 320 &= \frac{15}{100} \times 320 \\ &= 48 \end{aligned}$$

Final Answer

48

MCQ 60

An article costs Rs. 1500. It is sold at a profit of 12%. Find the selling price.

A. Rs. 1512 **B.** Rs. 1320**C.** Rs. 1780 **D.** Rs. 1680**Solution**

$$\begin{aligned} SP &= CP \left(1 + \frac{12}{100} \right) \\ &= 1500 \times \frac{112}{100} = 1680 \end{aligned}$$

Final Answer

Rs. 1680

MCQ 61

Find the simple interest on Rs. 2000 at 8% per annum for 2 years.

A. Rs. 120 **B.** Rs. 320**C.** Rs. 520 **D.** Rs. 2320**Solution**

$$\begin{aligned} SI &= \frac{PRT}{100} \\ &= \frac{2000 \times 8 \times 2}{100} = 320 \end{aligned}$$

Final Answer

Rs. 320

MCQ 62

A sum of 88 is divided in the ratio 4 : 7. Find the smaller first share.

A. 56 **B.** 40**C.** 32 **D.** 8**Solution**

$$4 : 7 \Rightarrow 4 + 7 = 11 \text{ parts}$$

$$1 \text{ part} = \frac{88}{11} = 8$$

$$\text{Required share} = 4 \times 8 = 32$$

Final Answer

32

MCQ 63If $n(A) = 30$, $n(B) = 18$, and $n(A \cap B) = 6$, find $n(A \cup B)$.**A.** 48 **B.** 6**C.** 42 **D.** 54**Solution**

$$\begin{aligned} n(A \cup B) &= n(A) + n(B) - n(A \cap B) \\ &= 30 + 18 - 6 = 42 \end{aligned}$$

Final Answer

42

MCQ 64

Two varieties costing Rs. 35 and Rs. 55 per unit are mixed to obtain a mean price of Rs. 43. Find the ratio of lower-priced to higher-priced variety.

A. 3 : 2 **B.** 1 : 1**C.** 5 : 1 **D.** 2 : 3**Solution**

$$\begin{aligned} \text{Lower : Higher} &= (55 - 43) : (43 - 35) \\ &= 12 : 8 = 3 : 2 \end{aligned}$$

Final Answer

3 : 2

MCQ 65Evaluate $36 \div 9 + 5 \times 2$.**A.** 4 **B.** 14**C.** 9 **D.** 18**Solution**

$$\begin{aligned} 36 \div 9 + 5 \times 2 \\ = 4 + 10 = 14 \end{aligned}$$

Final Answer

14

MCQ 66

A vehicle travels at 50 km/h for 4 hours. Find the distance covered.

- A. 200 km B. 54 km
C. 196 km D. 250 km

Solution

$$D = S \times T$$

$$= 50 \times 4 = 200 \text{ km}$$

Final Answer

200 km

MCQ 67

Find the area of a rectangle of length 15 cm and width 8 cm.

- A. 46 cm² B. 135 cm²
C. 120 cm² D. 23 cm²

Solution

$$A = l \times w$$

$$= 15 \times 8 = 120 \text{ cm}^2$$

Final Answer120 cm²**MCQ 68**

Two angles of a triangle are 35° and 85°. Find the third angle.

- A. 120° B. 31°
C. 30° D. 60°

Solution

$$\angle A + \angle B + \angle C = 180^\circ$$

$$\angle C = 180^\circ - 35^\circ - 85^\circ = 60^\circ$$

Final Answer

60°

MCQ 69

Find the simple interest on Rs. 2500 at 10% per annum for 4 years.

- A. Rs. 1250 B. Rs. 1000
C. Rs. 3500 D. Rs. 750

Solution

$$SI = \frac{PRT}{100}$$

$$= \frac{2500 \times 10 \times 4}{100} = 1000$$

Final Answer

Rs. 1000

MCQ 70

An article costs Rs. 1200. It is sold at a profit of 20%. Find the selling price.

- A. Rs. 1440 B. Rs. 960
C. Rs. 1220 D. Rs. 1540

Solution

$$SP = CP \left(1 + \frac{20}{100} \right)$$

$$= 1200 \times \frac{120}{100} = 1440$$

Final Answer

Rs. 1440

MCQ 71

Evaluate $30 \div 5 + 2 \times 2$.

- A. 10 B. 16
C. 17 D. 8

Solution

$$30 \div 5 + 2 \times 2$$

$$= 6 + 4 = 10$$

Final Answer

10

MCQ 72

The ages of two persons are in the ratio 4 : 7 and their total age is 66 years. Find the younger age.

- A. 42 years B. 6 years
C. 29 years D. 24 years

Solution

$$\text{Age ratio} = 4 : 7, \quad \text{Total} = 66$$

$$1 \text{ part} = \frac{66}{11} = 6$$

$$\text{Younger age} = 4 \times 6 = 24$$

Final Answer

24 years

MCQ 73

Find the next term: 10, 16, 22, 28, 34, ?.

- A. 34 B. 46
C. 68 D. 40

Solution

$$16 - 10 = 6, \quad 22 - 16 = 6$$

$$34 + 6 = 40$$

Final Answer

40

MCQ 74Solve $x^2 - 9x + 18 = 0$.**A.** 6, 7**B.** 3, 6**C.** 3, -6**D.** -3, -6**Solution**

$$x^2 - 9x + 18 = 0$$

$$(x - 3)(x - 6) = 0$$

$$x = 3 \quad \text{or} \quad x = 6$$

Final Answer $x = 3, 6$ **MCQ 75**

A sum of 91 is divided in the ratio 5 : 8. Find the smaller first share.

A. 42**B.** 56**C.** 7**D.** 35**Solution**

$$5 : 8 \Rightarrow 5 + 8 = 13 \text{ parts}$$

$$1 \text{ part} = \frac{91}{13} = 7$$

$$\text{Required share} = 5 \times 7 = 35$$

Final Answer

35

MCQ 76

A can finish a job in 8 days and B in 24 days. How long will they take together?

A. 4 days**B.** 16 days**C.** 7 days**D.** 6 days**Solution**

$$\text{Combined rate} = \frac{1}{8} + \frac{1}{24} = \frac{32}{192}$$

$$T = \frac{192}{32} = 6 \text{ days}$$

Final Answer

6 days

MCQ 77

Find 20% of 450.

A. 80**B.** 100**C.** 45**D.** 90**Solution**

$$20\% \text{ of } 450 = \frac{20}{100} \times 450$$

$$= 90$$

Final Answer

90

MCQ 78The average of 9, 12, 15 and x is 13. Find x .**A.** 18**B.** 21**C.** 13**D.** 15**Solution**

$$\text{Total} = 13 \times 4 = 52$$

$$x = 52 - (9 + 12 + 15)$$

$$x = 18$$

Final Answer

18

MCQ 79

Two varieties costing Rs. 30 and Rs. 50 per unit are mixed to obtain a mean price of Rs. 38. Find the ratio of lower-priced to higher-priced variety.

A. 2 : 3**B.** 5 : 1**C.** 3 : 2**D.** 1 : 1**Solution**

$$\text{Lower : Higher} = (50 - 38) : (38 - 30)$$

$$= 12 : 8 = 3 : 2$$

Final Answer

3 : 2

MCQ 80

A vehicle travels at 60 km/h for 2 hours. Find the distance covered.

A. 120 km**B.** 62 km**C.** 180 km**D.** 118 km**Solution**

$$D = S \times T$$

$$= 60 \times 2 = 120 \text{ km}$$

Final Answer

120 km

MCQ 81

A candidate is 12th from the left and 18th from the right in a row. How many candidates are in the row?

A. 29**B.** 6**C.** 30**D.** 31**Solution**

$$N = L + R - 1$$

$$= 12 + 18 - 1 = 29$$

Final Answer

29

MCQ 82

Find the HCF of 48 and 72.

- A. 12 B. 24
C. 48 D. 120

Solution

$$48 = 24 \times 2, \quad 72 = 24 \times 3$$

$$\text{HCF}(48, 72) = 24$$

Final Answer

24

MCQ 83Solve $4x + 7 = 43$.

- A. 43 B. 9
C. 10 D. 8

Solution

$$4x + 7 = 43$$

$$4x = 43 - 7 = 36$$

$$x = \frac{36}{4} = 9$$

Final Answer $x = 9$ **MCQ 84**Calculate $\frac{7}{10} + \frac{1}{5}$.

- A. $\frac{1}{2}$ B. $\frac{9}{10}$
C. $\frac{1}{15}$ D. 1

Solution

$$\begin{aligned} \frac{7}{10} + \frac{1}{5} &= \frac{7}{10} + \frac{2}{10} \\ &= \frac{9}{10} = \frac{9}{10} \end{aligned}$$

Final Answer $\frac{9}{10}$ **MCQ 85**

Find the mean of 5, 7, 9, 11, 13.

- A. 10 B. 8
C. 9 D. 13

Solution

$$\begin{aligned} \bar{x} &= \frac{5 + 7 + 9 + 11 + 13}{5} \\ &= \frac{45}{5} = 9 \end{aligned}$$

Final Answer

9

MCQ 86Evaluate $5^3 \times 5^2$.

- A. 3125 B. 150
C. 5 D. 15625

Solution

$$5^3 \times 5^2 = 5^{3+2} = 5^5$$

$$= 3125$$

Final Answer

3125

MCQ 87Two angles of a triangle are 60° and 50° . Find the third angle.

- A. 20° B. 110°
C. 70° D. 21°

Solution

$$\angle A + \angle B + \angle C = 180^\circ$$

$$\angle C = 180^\circ - 60^\circ - 50^\circ = 70^\circ$$

Final Answer 70° **MCQ 88**

A bag contains 5 red and 5 blue balls. One ball is drawn at random. Find the probability that it is red.

- A. $\frac{11}{10}$ B. $\frac{1}{10}$
C. $\frac{5}{11}$ D. $\frac{1}{2}$

Solution

$$\begin{aligned} P(\text{red}) &= \frac{\text{red outcomes}}{\text{total outcomes}} \\ &= \frac{5}{10} = \frac{1}{2} \end{aligned}$$

Final Answer $\frac{1}{2}$ **MCQ 89**

The ages of two persons are in the ratio 5 : 8 and their total age is 65 years. Find the younger age.

- A. 25 years B. 5 years
C. 40 years D. 30 years

Solution

$$\text{Age ratio} = 5 : 8, \quad \text{Total} = 65$$

$$1 \text{ part} = \frac{65}{13} = 5$$

$$\text{Younger age} = 5 \times 5 = 25$$

Final Answer

25 years

MCQ 90

Find the next term: 7, 12, 17, 22, 27, ?.

- A. 27 B. 37
C. 54 D. 32

Solution

$$12 - 7 = 5, \quad 17 - 12 = 5$$

$$27 + 5 = 32$$

Final Answer

32

MCQ 91Calculate $\frac{5}{6} + \frac{1}{3}$.

- A. $\frac{4}{3}$ B. $\frac{2}{3}$
C. $\frac{7}{6}$ D. $\frac{1}{2}$

Solution

$$\begin{aligned} \frac{5}{6} + \frac{1}{3} &= \frac{5}{6} + \frac{2}{6} \\ &= \frac{7}{6} = \frac{7}{6} \end{aligned}$$

Final Answer $\frac{7}{6}$ **MCQ 92**

A can finish a job in 20 days and B in 30 days. How long will they take together?

- A. 25 days B. 12 days
C. 13 days D. 10 days

Solution

$$\text{Combined rate} = \frac{1}{20} + \frac{1}{30} = \frac{50}{600}$$

$$T = \frac{600}{50} = 12 \text{ days}$$

Final Answer

12 days

MCQ 93Evaluate $5x + 3$ for $x = 5$.

- A. 8 B. 23
C. 28 D. 24

Solution

$$5x + 3 \quad \text{at} \quad x = 5$$

$$= 5(5) + 3 = 25 + 3 = 28$$

Final Answer

28

MCQ 94If $n(A) = 35$, $n(B) = 25$, and $n(A \cap B) = 10$, find $n(A \cup B)$.

- A. 10 B. 60
C. 50 D. 70

Solution

$$n(A \cup B) = n(A) + n(B) - n(A \cap B)$$

$$= 35 + 25 - 10 = 50$$

Final Answer

50

MCQ 95

A bag contains 6 red and 4 blue balls. One ball is drawn at random. Find the probability that it is red.

- A. $\frac{1}{10}$ B. $\frac{3}{5}$
C. $\frac{2}{5}$ D. $\frac{6}{11}$

Solution

$$\begin{aligned} P(\text{red}) &= \frac{\text{red outcomes}}{\text{total outcomes}} \\ &= \frac{6}{10} = \frac{3}{5} \end{aligned}$$

Final Answer $\frac{3}{5}$ **MCQ 96**

If 8 items cost Rs. 600, what is the cost of 12 items at the same rate?

- A. Rs. 975 B. Rs. 825
C. Rs. 600 D. Rs. 900

Solution

$$1 \text{ unit cost} = \frac{600}{8} = 75$$

$$12 \text{ units cost} = 75 \times 12 = 900$$

Final Answer

Rs. 900

MCQ 97

Find the HCF of 42 and 56.

- A. 98 B. 28
C. 7 D. 14

Solution

$$42 = 14 \times 3, \quad 56 = 14 \times 4$$

$$\text{HCF}(42, 56) = 14$$

Final Answer

14

MCQ 98Evaluate $4^4 \times 4^1$.

- A. 1024 B. 260
C. 64 D. 256

Solution

$$4^4 \times 4^1 = 4^{4+1} = 4^5 \\ = 1024$$

Final Answer

1024

MCQ 99

Find the area of a rectangle of length 12 cm and width 7 cm.

- A. 38 cm^2 B. 96 cm^2
C. 19 cm^2 D. 84 cm^2

Solution

$$A = l \times w \\ = 12 \times 7 = 84 \text{ cm}^2$$

Final Answer 84 cm^2 **MCQ 100**The average of 8, 11, 14 and x is 12. Find x .

- A. 14 B. 17
C. 20 D. 12

Solution

$$\text{Total} = 12 \times 4 = 48$$

$$x = 48 - (8 + 11 + 14)$$

$$x = 17$$

Final Answer

17

MOCK TEST 3 | 50 MIXED BASIC MATH MCQs

MCQ 101

A sum of 96 is divided in the ratio 7 : 9. Find the smaller first share.

- A. 42 B. 54
C. 6 D. 48

Solution

$$7 : 9 \Rightarrow 7 + 9 = 16 \text{ parts}$$

$$1 \text{ part} = \frac{96}{16} = 6$$

$$\text{Required share} = 7 \times 6 = 42$$

Final Answer

42

MCQ 102

Find the area of a rectangle of length 18 cm and width 9 cm.

- A. 54 cm² B. 162 cm²
C. 180 cm² D. 27 cm²

Solution

$$A = l \times w$$

$$= 18 \times 9 = 162 \text{ cm}^2$$

Final Answer

162 cm²

MCQ 103

Evaluate $2^5 \times 2^2$.

- A. 36 B. 1024
C. 8 D. 128

Solution

$$2^5 \times 2^2 = 2^{5+2} = 2^7$$

$$= 128$$

Final Answer

128

MCQ 104

Two angles of a triangle are 45° and 65°. Find the third angle.

- A. 20° B. 110°
C. 21° D. 70°

Solution

$$\angle A + \angle B + \angle C = 180^\circ$$

$$\angle C = 180^\circ - 45^\circ - 65^\circ = 70^\circ$$

Final Answer

70°

MCQ 105

Find the mean of 7, 9, 11, 13, 15.

- A. 11 B. 15
C. 10 D. 12

Solution

$$\begin{aligned} \bar{x} &= \frac{7 + 9 + 11 + 13 + 15}{5} \\ &= \frac{55}{5} = 11 \end{aligned}$$

Final Answer

11

MCQ 106

A invests Rs. 50000 and B invests Rs. 60000 for the same period. If the profit is Rs. 15400, find A's share.

- A. Rs. 7000 B. Rs. 1401
C. Rs. 8400 D. Rs. 1400

Solution

$$A : B = 50000 : 60000 = 5 : 6$$

$$A's \text{ share} = 15400 \times \frac{5}{11} = 7000$$

Final Answer

Rs. 7000

MCQ 107

A invests Rs. 24000 and B invests Rs. 32000 for the same period. If the profit is Rs. 10500, find A's share.

- A. Rs. 1501 B. Rs. 6000
C. Rs. 4500 D. Rs. 1500

Solution

$$A : B = 24000 : 32000 = 3 : 4$$

$$A's \text{ share} = 10500 \times \frac{3}{7} = 4500$$

Final Answer

Rs. 4500

MCQ 108

Solve $7x + 6 = 34$.

- A. 3 B. 4
C. 5 D. 34

Solution

$$7x + 6 = 34$$

$$7x = 34 - 6 = 28$$

$$x = \frac{28}{7} = 4$$

Final Answer $x = 4$ **MCQ 109**

Find the HCF of 54 and 90.

- A. 144 B. 9
C. 18 D. 36

Solution

$$54 = 18 \times 3, \quad 90 = 18 \times 5$$

$$\text{HCF}(54, 90) = 18$$

Final Answer

18

MCQ 110

Find the area of a rectangle of length 20 cm and width 10 cm.

- A. 30 cm^2 B. 60 cm^2
C. 220 cm^2 D. 200 cm^2

Solution

$$A = l \times w$$

$$= 20 \times 10 = 200 \text{ cm}^2$$

Final Answer 200 cm^2 **MCQ 111**

Evaluate $6x + 4$ for $x = 6$.

- A. 34 B. 35
C. 40 D. 10

Solution

$$6x + 4 \text{ at } x = 6$$

$$= 6(6) + 4 = 36 + 4 = 40$$

Final Answer

40

MCQ 112

If $n(A) = 45$, $n(B) = 28$, and $n(A \cap B) = 9$, find $n(A \cup B)$.

- A. 73 B. 9
C. 64 D. 82

Solution

$$n(A \cup B) = n(A) + n(B) - n(A \cap B)$$

$$= 45 + 28 - 9 = 64$$

Final Answer

64

MCQ 113

A can finish a job in 6 days and B in 12 days. How long will they take together?

- A. 4 days B. 5 days
C. 9 days D. 3 days

Solution

$$\text{Combined rate} = \frac{1}{6} + \frac{1}{12} = \frac{18}{72}$$

$$T = \frac{72}{18} = 4 \text{ days}$$

Final Answer

4 days

MCQ 114

A vehicle travels at 72 km/h for 5 hours. Find the distance covered.

- A. 432 km B. 77 km
C. 360 km D. 355 km

Solution

$$D = S \times T$$

$$= 72 \times 5 = 360 \text{ km}$$

Final Answer

360 km

MCQ 115

A can finish a job in 15 days and B in 30 days. How long will they take together?

- A. 11 days B. 10 days
C. $\frac{15}{2}$ days D. $\frac{45}{2}$ days

Solution

$$\text{Combined rate} = \frac{1}{15} + \frac{1}{30} = \frac{45}{450}$$

$$T = \frac{450}{45} = 10 \text{ days}$$

Final Answer

10 days

MCQ 116

Calculate $\frac{3}{7} + \frac{2}{7}$.

- A. $\frac{1}{7}$ B. $\frac{5}{7}$
C. $\frac{6}{7}$ D. $\frac{5}{14}$

Solution

$$\begin{aligned} \frac{3}{7} + \frac{2}{7} &= \frac{3}{7} + \frac{2}{7} \\ &= \frac{5}{7} = \frac{5}{7} \end{aligned}$$

Final Answer $\frac{5}{7}$ **MCQ 117**

Two angles of a triangle are 55° and 45° . Find the third angle.

- A. 100° B. 80°
C. 10° D. 11°

Solution

$$\angle A + \angle B + \angle C = 180^\circ$$

$$\angle C = 180^\circ - 55^\circ - 45^\circ = 80^\circ$$

Final Answer 80° **MCQ 118**

A bag contains 8 red and 7 blue balls. One ball is drawn at random. Find the probability that it is red.

- A. $\frac{8}{15}$ B. $\frac{7}{15}$
C. $\frac{1}{15}$ D. $\frac{1}{2}$

Solution

$$\begin{aligned} P(\text{red}) &= \frac{\text{red outcomes}}{\text{total outcomes}} \\ &= \frac{8}{15} = \frac{8}{15} \end{aligned}$$

Final Answer $\frac{8}{15}$ **MCQ 119**

Find the simple interest on Rs. 4000 at 7% per annum for 3 years.

- A. Rs. 4840 B. Rs. 840
C. Rs. 1240 D. Rs. 440

Solution

$$\begin{aligned} SI &= \frac{PRT}{100} \\ &= \frac{4000 \times 7 \times 3}{100} = 840 \end{aligned}$$

Final Answer

Rs. 840

MCQ 120

Solve $6x + 4 = 34$.

- A. 6 B. 34
C. 5 D. 4

Solution

$$6x + 4 = 34$$

$$6x = 34 - 4 = 30$$

$$x = \frac{30}{6} = 5$$

Final Answer $x = 5$

MCQ 121

A candidate is 20th from the left and 25th from the right in a row. How many candidates are in the row?

- A. 46 B. 44
C. 45 D. 5

Solution

$$N = L + R - 1$$

$$= 20 + 25 - 1 = 44$$

Final Answer

44

MCQ 122

The average of 11, 14, 17 and x is 15. Find x .

- A. 15 B. 23
C. 20 D. 17

Solution

$$\text{Total} = 15 \times 4 = 60$$

$$x = 60 - (11 + 14 + 17)$$

$$x = 20$$

Final Answer

20

MCQ 123

Find the simple interest on Rs. 3000 at 12% per annum for 2 years.

- A. Rs. 3720 B. Rs. 720
C. Rs. 420 D. Rs. 1020

Solution

$$SI = \frac{PRT}{100}$$

$$= \frac{3000 \times 12 \times 2}{100} = 720$$

Final Answer

Rs. 720

MCQ 124

A vehicle travels at 80 km/h for 3 hours. Find the distance covered.

- A. 240 km B. 320 km
C. 237 km D. 83 km

Solution

$$D = S \times T$$

$$= 80 \times 3 = 240 \text{ km}$$

Final Answer

240 km

MCQ 125

Find 30% of 280.

- A. 74 B. 84
C. 94 D. 42

Solution

$$30\% \text{ of } 280 = \frac{30}{100} \times 280$$

$$= 84$$

Final Answer

84

MCQ 126

If $n(A) = 40$, $n(B) = 30$, and $n(A \cap B) = 12$, find $n(A \cup B)$.

- A. 58 B. 70
C. 82 D. 12

Solution

$$n(A \cup B) = n(A) + n(B) - n(A \cap B)$$

$$= 40 + 30 - 12 = 58$$

Final Answer

58

MCQ 127

A candidate is 17th from the left and 22th from the right in a row. How many candidates are in the row?

- A. 5 B. 38
C. 40 D. 39

Solution

$$N = L + R - 1$$

$$= 17 + 22 - 1 = 38$$

Final Answer

38

MCQ 128

If 10 items cost Rs. 900, what is the cost of 15 items at the same rate?

- A. Rs. 900 B. Rs. 1440
C. Rs. 1260 D. Rs. 1350

Solution

$$1 \text{ unit cost} = \frac{900}{10} = 90$$

$$15 \text{ units cost} = 90 \times 15 = 1350$$

Final Answer

Rs. 1350

MCQ 129

The ages of two persons are in the ratio 5 : 7 and their total age is 72 years. Find the younger age.

- A. 30 years B. 6 years
C. 42 years D. 35 years

Solution

$$\text{Age ratio} = 5 : 7, \quad \text{Total} = 72$$

$$1 \text{ part} = \frac{72}{12} = 6$$

$$\text{Younger age} = 5 \times 6 = 30$$

Final Answer

30 years

MCQ 130

Find 25% of 360.

- A. 45 B. 100
C. 90 D. 80

Solution

$$\begin{aligned} 25\% \text{ of } 360 &= \frac{25}{100} \times 360 \\ &= 90 \end{aligned}$$

Final Answer

90

MCQ 131

Evaluate $48 \div 6 + 7 \times 2$.

- A. 22 B. 30
C. 6 D. 15

Solution

$$48 \div 6 + 7 \times 2$$

$$= 8 + 14 = 22$$

Final Answer

22

MCQ 132

A sum of 105 is divided in the ratio 3 : 4. Find the smaller first share.

- A. 15 B. 60
C. 16 D. 45

Solution

$$3 : 4 \Rightarrow 3 + 4 = 7 \text{ parts}$$

$$1 \text{ part} = \frac{105}{7} = 15$$

$$\text{Required share} = 3 \times 15 = 45$$

Final Answer

45

MCQ 133

An article costs Rs. 2000. It is sold at a profit of 25%. Find the selling price.

- A. Rs. 2025 B. Rs. 1500
C. Rs. 2500 D. Rs. 2600

Solution

$$\begin{aligned} SP &= CP \left(1 + \frac{25}{100} \right) \\ &= 2000 \times \frac{125}{100} = 2500 \end{aligned}$$

Final Answer

Rs. 2500

MCQ 134

Two varieties costing Rs. 40 and Rs. 60 per unit are mixed to obtain a mean price of Rs. 48. Find the ratio of lower-priced to higher-priced variety.

- A. 5 : 1 B. 2 : 3
C. 1 : 1 D. 3 : 2

Solution

$$\text{Lower : Higher} = (60 - 48) : (48 - 40)$$

$$= 12 : 8 = 3 : 2$$

Final Answer

3 : 2

MCQ 135

Evaluate $3x + 8$ for $x = 7$.

- A. 11 B. 29
C. 26 D. 15

Solution

$$3x + 8 \text{ at } x = 7$$

$$= 3(7) + 8 = 21 + 8 = 29$$

Final Answer

29

MCQ 136

Calculate $\frac{2}{5} + \frac{3}{10}$.

- A. $\frac{1}{3}$ B. $\frac{4}{5}$
C. $\frac{1}{10}$ D. $\frac{7}{10}$

Solution

$$\begin{aligned} \frac{2}{5} + \frac{3}{10} &= \frac{4}{10} + \frac{3}{10} \\ &= \frac{7}{10} = \frac{7}{10} \end{aligned}$$

Final Answer $\frac{7}{10}$

MCQ 137

Find the next term: 3, 11, 19, 27, 35, ?.

- A. 43 B. 35
C. 51 D. 70

Solution

$$11 - 3 = 8, \quad 19 - 11 = 8$$

$$35 + 8 = 43$$

Final Answer

43

MCQ 138The average of 10, 13, 16 and x is 14. Find x .

- A. 16 B. 22
C. 14 D. 19

Solution

$$\text{Total} = 14 \times 4 = 56$$

$$x = 56 - (10 + 13 + 16)$$

$$x = 19$$

Final Answer

19

MCQ 139

An article costs Rs. 2500. It is sold at a profit of 8%. Find the selling price.

- A. Rs. 2300 B. Rs. 2508
C. Rs. 2800 D. Rs. 2700

Solution

$$SP = CP \left(1 + \frac{8}{100} \right)$$

$$= 2500 \times \frac{108}{100} = 2700$$

Final Answer

Rs. 2700

MCQ 140

Find the HCF of 63 and 84.

- A. 21 B. 147
C. 10 D. 42

Solution

$$63 = 21 \times 3, \quad 84 = 21 \times 4$$

$$\text{HCF}(63, 84) = 21$$

Final Answer

21

MCQ 141Solve $x^2 - 13x + 40 = 0$.

- A. 8, 9 B. 5, 8
C. -5, -8 D. 5, -8

Solution

$$x^2 - 13x + 40 = 0$$

$$(x - 5)(x - 8) = 0$$

$$x = 5 \quad \text{or} \quad x = 8$$

Final Answer $x = 5, 8$ **MCQ 142**

If 12 items cost Rs. 1080, what is the cost of 18 items at the same rate?

- A. Rs. 1530 B. Rs. 1080
C. Rs. 1620 D. Rs. 1710

Solution

$$1 \text{ unit cost} = \frac{1080}{12} = 90$$

$$18 \text{ units cost} = 90 \times 18 = 1620$$

Final Answer

Rs. 1620

MCQ 143

Two varieties costing Rs. 45 and Rs. 65 per unit are mixed to obtain a mean price of Rs. 53. Find the ratio of lower-priced to higher-priced variety.

- A. 5 : 1 B. 3 : 2
C. 2 : 3 D. 1 : 1

Solution

$$\text{Lower : Higher} = (65 - 53) : (53 - 45)$$

$$= 12 : 8 = 3 : 2$$

Final Answer

3 : 2

MCQ 144

Find the mean of 6, 8, 10, 12, 14.

- A. 9 B. 11
C. 10 D. 14

Solution

$$\bar{x} = \frac{6 + 8 + 10 + 12 + 14}{5}$$

$$= \frac{50}{5} = 10$$

Final Answer

10

MCQ 145Evaluate $42 \div 7 + 6 \times 2$.

- A. 6 B. 18
C. 12 D. 24

Solution

$$42 \div 7 + 6 \times 2$$

$$= 6 + 12 = 18$$

Final Answer

18

MCQ 146

The ages of two persons are in the ratio 3 : 4 and their total age is 63 years. Find the younger age.

- A. 36 years B. 27 years
C. 9 years D. 32 years

Solution

$$\text{Age ratio} = 3 : 4, \quad \text{Total} = 63$$

$$1 \text{ part} = \frac{63}{7} = 9$$

$$\text{Younger age} = 3 \times 9 = 27$$

Final Answer

27 years

MCQ 147Solve $x^2 - 15x + 54 = 0$.

- A. 6, 9 B. -6, -9
C. 9, 10 D. 6, -9

Solution

$$x^2 - 15x + 54 = 0$$

$$(x - 6)(x - 9) = 0$$

$$x = 6 \quad \text{or} \quad x = 9$$

Final Answer $x = 6, 9$ **MCQ 148**

A bag contains 7 red and 6 blue balls. One ball is drawn at random. Find the probability that it is red.

- A. $\frac{6}{13}$ B. $\frac{7}{13}$
C. $\frac{1}{2}$ D. $\frac{1}{13}$

Solution

$$P(\text{red}) = \frac{\text{red outcomes}}{\text{total outcomes}}$$

$$= \frac{7}{13} = \frac{7}{13}$$

Final Answer $\frac{7}{13}$ **MCQ 149**Evaluate $3^4 \times 3^1$.

- A. 243 B. 84
C. 27 D. 81

Solution

$$3^4 \times 3^1 = 3^{4+1} = 3^5$$

$$= 243$$

Final Answer

243

MCQ 150

Find the next term: 12, 19, 26, 33, 40, ?.

- A. 54 B. 80
C. 40 D. 47

Solution

$$19 - 12 = 7, \quad 26 - 19 = 7$$

$$40 + 7 = 47$$

Final Answer

47

MOCK TEST 4 | 50 MIXED BASIC MATH MCQs

MCQ 151

The ages of two persons are in the ratio 4 : 5 and their total age is 90 years. Find the younger age.

- A. 45 years B. 10 years
C. 50 years D. 40 years

Solution

$$\text{Age ratio} = 4 : 5, \quad \text{Total} = 90$$

$$1 \text{ part} = \frac{90}{9} = 10$$

$$\text{Younger age} = 4 \times 10 = 40$$

Final Answer 40 years

MCQ 152

Find the next term: 11, 20, 29, 38, 47, ?.

- A. 94 B. 65
C. 56 D. 47

Solution

$$20 - 11 = 9, \quad 29 - 20 = 9$$

$$47 + 9 = 56$$

Final Answer 56

MCQ 153

An article costs Rs. 3600. It is sold at a profit of 10%. Find the selling price.

- A. Rs. 3960 B. Rs. 3240
C. Rs. 4060 D. Rs. 3610

Solution

$$SP = CP \left(1 + \frac{10}{100} \right)$$

$$= 3600 \times \frac{110}{100} = 3960$$

Final Answer Rs. 3960

MCQ 154

Evaluate $54 \div 9 + 4 \times 2$.

- A. 14 B. 10
C. 8 D. 20

Solution

$$54 \div 9 + 4 \times 2$$

$$= 6 + 8 = 14$$

Final Answer 14

MCQ 155

If $n(A) = 55$, $n(B) = 40$, and $n(A \cap B) = 14$, find $n(A \cup B)$.

- A. 14 B. 95
C. 81 D. 109

Solution

$$n(A \cup B) = n(A) + n(B) - n(A \cap B)$$

$$= 55 + 40 - 14 = 81$$

Final Answer 81

MCQ 156

The average of 13, 16, 19 and x is 17. Find x .

- A. 22 B. 25
C. 17 D. 19

Solution

$$\text{Total} = 17 \times 4 = 68$$

$$x = 68 - (13 + 16 + 19)$$

$$x = 22$$

Final Answer 22

MCQ 157

A vehicle travels at 90 km/h for 2 hours. Find the distance covered.

- A. 92 km B. 270 km
C. 178 km D. 180 km

Solution

$$D = S \times T$$

$$= 90 \times 2 = 180 \text{ km}$$

Final Answer 180 km

MCQ 158

Find the area of a rectangle of length 25 cm and width 14 cm.

- A. 78 cm^2 B. 375 cm^2
C. 350 cm^2 D. 39 cm^2

Solution

$$A = l \times w$$

$$= 25 \times 14 = 350 \text{ cm}^2$$

Final Answer350 cm²**MCQ 159**

Find the simple interest on Rs. 5000 at 9% per annum for 2 years.

- A. Rs. 1400 B. Rs. 5900
C. Rs. 900 D. Rs. 400

Solution

$$SI = \frac{PRT}{100}$$

$$= \frac{5000 \times 9 \times 2}{100} = 900$$

Final Answer

Rs. 900

MCQ 160

The ages of two persons are in the ratio 7 : 9 and their total age is 64 years. Find the younger age.

- A. 33 years B. 4 years
C. 28 years D. 36 years

Solution

$$\text{Age ratio} = 7 : 9, \quad \text{Total} = 64$$

$$1 \text{ part} = \frac{64}{16} = 4$$

$$\text{Younger age} = 7 \times 4 = 28$$

Final Answer

28 years

MCQ 161

A can finish a job in 16 days and B in 48 days. How long will they take together?

- A. 32 days B. 8 days
C. 12 days D. 13 days

Solution

$$\text{Combined rate} = \frac{1}{16} + \frac{1}{48} = \frac{64}{768}$$

$$T = \frac{768}{64} = 12 \text{ days}$$

Final Answer

12 days

MCQ 162

A sum of 95 is divided in the ratio 8 : 11. Find the smaller first share.

- A. 40 B. 55
C. 5 D. 45

Solution

$$8 : 11 \Rightarrow 8 + 11 = 19 \text{ parts}$$

$$1 \text{ part} = \frac{95}{19} = 5$$

$$\text{Required share} = 8 \times 5 = 40$$

Final Answer

40

MCQ 163

Calculate $\frac{4}{9} + \frac{1}{3}$.

- A. $\frac{1}{9}$ B. $\frac{8}{9}$
C. $\frac{5}{12}$ D. $\frac{7}{9}$

Solution

$$\frac{4}{9} + \frac{1}{3} = \frac{4}{9} + \frac{3}{9}$$

$$= \frac{7}{9} = \frac{7}{9}$$

Final Answer $\frac{7}{9}$

MCQ 164

Find the mean of 9, 11, 13, 15, 17.

- A. 17 B. 12
C. 13 D. 14

Solution

$$\begin{aligned}\bar{x} &= \frac{9 + 11 + 13 + 15 + 17}{5} \\ &= \frac{65}{5} = 13\end{aligned}$$

Final Answer

13

MCQ 165

A bag contains 10 red and 5 blue balls. One ball is drawn at random. Find the probability that it is red.

- A. $\frac{1}{15}$ B. $\frac{1}{3}$
C. $\frac{5}{8}$ D. $\frac{2}{3}$

Solution

$$\begin{aligned}P(\text{red}) &= \frac{\text{red outcomes}}{\text{total outcomes}} \\ &= \frac{10}{15} = \frac{2}{3}\end{aligned}$$

Final Answer $\frac{2}{3}$ **MCQ 166**

A can finish a job in 9 days and B in 18 days. How long will they take together?

- A. $\frac{27}{2}$ days B. $\frac{9}{2}$ days
C. 7 days D. 6 days

Solution

$$\begin{aligned}\text{Combined rate} &= \frac{1}{9} + \frac{1}{18} = \frac{27}{162} \\ T &= \frac{162}{27} = 6 \text{ days}\end{aligned}$$

Final Answer

6 days

MCQ 167The average of 12, 15, 18 and x is 16. Find x .

- A. 16 B. 24
C. 21 D. 18

Solution

$$\text{Total} = 16 \times 4 = 64$$

$$x = 64 - (12 + 15 + 18)$$

$$x = 21$$

Final Answer

21

MCQ 168Two angles of a triangle are 65° and 55° . Find the third angle.

- A. 30° B. 31°
C. 60° D. 120°

Solution

$$\angle A + \angle B + \angle C = 180^\circ$$

$$\angle C = 180^\circ - 65^\circ - 55^\circ = 60^\circ$$

Final Answer 60° **MCQ 169**

A candidate is 25th from the left and 30th from the right in a row. How many candidates are in the row?

- A. 54 B. 55
C. 56 D. 5

Solution

$$N = L + R - 1$$

$$= 25 + 30 - 1 = 54$$

Final Answer

54

MCQ 170Solve $8x + 8 = 32$.

- A. 3 B. 2
C. 4 D. 32

Solution

$$8x + 8 = 32$$

$$8x = 32 - 8 = 24$$

$$x = \frac{24}{8} = 3$$

Final Answer $x = 3$

MCQ 171

If $n(A) = 50$, $n(B) = 35$, and $n(A \cap B) = 15$, find $n(A \cup B)$.

- A. 85 B. 100
C. 15 D. 70

Solution

$$\begin{aligned} n(A \cup B) &= n(A) + n(B) - n(A \cap B) \\ &= 50 + 35 - 15 = 70 \end{aligned}$$

Final Answer

70

MCQ 172

Find the simple interest on Rs. 6000 at 5% per annum for 5 years.

- A. Rs. 2100 B. Rs. 900
C. Rs. 7500 D. Rs. 1500

Solution

$$\begin{aligned} SI &= \frac{PRT}{100} \\ &= \frac{6000 \times 5 \times 5}{100} = 1500 \end{aligned}$$

Final Answer

Rs. 1500

MCQ 173

Find the HCF of 32 and 48.

- A. 16 B. 80
C. 32 D. 8

Solution

$$\begin{aligned} 32 &= 16 \times 2, & 48 &= 16 \times 3 \\ \text{HCF}(32, 48) &= 16 \end{aligned}$$

Final Answer

16

MCQ 174

Find 35% of 400.

- A. 130 B. 70
C. 140 D. 150

Solution

$$\begin{aligned} 35\% \text{ of } 400 &= \frac{35}{100} \times 400 \\ &= 140 \end{aligned}$$

Final Answer

140

MCQ 175

Evaluate $4x + 6$ for $x = 9$.

- A. 38 B. 10
C. 15 D. 42

Solution

$$\begin{aligned} 4x + 6 &\text{ at } x = 9 \\ &= 4(9) + 6 = 36 + 6 = 42 \end{aligned}$$

Final Answer

42

MCQ 176

Evaluate $7^2 \times 7^2$.

- A. 1 B. 98
C. 2 D. 2401

Solution

$$\begin{aligned} 7^2 \times 7^2 &= 7^{2+2} = 7^4 \\ &= 2401 \end{aligned}$$

Final Answer

2401

MCQ 177

A invests Rs. 36000 and B invests Rs. 48000 for the same period. If the profit is Rs. 11200, find A's share.

- A. Rs. 4800 B. Rs. 1600
C. Rs. 1601 D. Rs. 6400

Solution

$$\begin{aligned} A : B &= 36000 : 48000 = 3 : 4 \\ \text{A's share} &= 11200 \times \frac{3}{7} = 4800 \end{aligned}$$

Final Answer

Rs. 4800

MCQ 178

An article costs Rs. 3000. It is sold at a profit of 18%. Find the selling price.

- A. Rs. 3640 B. Rs. 2460
C. Rs. 3018 D. Rs. 3540

Solution

$$\begin{aligned} SP &= CP \left(1 + \frac{18}{100} \right) \\ &= 3000 \times \frac{118}{100} = 3540 \end{aligned}$$

Final Answer

Rs. 3540

MCQ 179Evaluate $5^2 \times 5^3$.

- A. 150 B. 3125
C. 0.2 D. 15625

Solution

$$5^2 \times 5^3 = 5^{2+3} = 5^5$$

$$= 3125$$

Final Answer

3125

MCQ 180

Two varieties costing Rs. 50 and Rs. 70 per unit are mixed to obtain a mean price of Rs. 58. Find the ratio of lower-priced to higher-priced variety.

- A. 2 : 3 B. 3 : 2
C. 5 : 1 D. 1 : 1

Solution

$$\text{Lower : Higher} = (70 - 58) : (58 - 50)$$

$$= 12 : 8 = 3 : 2$$

Final Answer

3 : 2

MCQ 181

A candidate is 22th from the left and 27th from the right in a row. How many candidates are in the row?

- A. 49 B. 50
C. 5 D. 48

Solution

$$N = L + R - 1$$

$$= 22 + 27 - 1 = 48$$

Final Answer

48

MCQ 182

If 15 items cost Rs. 1500, what is the cost of 20 items at the same rate?

- A. Rs. 1900 B. Rs. 1500
C. Rs. 2000 D. Rs. 2100

Solution

$$1 \text{ unit cost} = \frac{1500}{15} = 100$$

$$20 \text{ units cost} = 100 \times 20 = 2000$$

Final Answer

Rs. 2000

MCQ 183

A bag contains 9 red and 3 blue balls. One ball is drawn at random. Find the probability that it is red.

- A. $\frac{9}{13}$ B. $\frac{1}{4}$
C. $\frac{1}{12}$ D. $\frac{3}{4}$

Solution

$$P(\text{red}) = \frac{\text{red outcomes}}{\text{total outcomes}}$$

$$= \frac{9}{12} = \frac{3}{4}$$

Final Answer $\frac{3}{4}$ **MCQ 184**

Find the HCF of 45 and 75.

- A. 30 B. 120
C. 7 D. 15

Solution

$$45 = 15 \times 3, \quad 75 = 15 \times 5$$

$$\text{HCF}(45, 75) = 15$$

Final Answer

15

MCQ 185

Find the mean of 8, 10, 12, 14, 16.

- A. 13 B. 12
C. 16 D. 11

Solution

$$\bar{x} = \frac{8 + 10 + 12 + 14 + 16}{5}$$

$$= \frac{60}{5} = 12$$

Final Answer

12

MCQ 186

Find 40% of 550.

- A. 230 B. 220
C. 210 D. 110

Solution

$$40\% \text{ of } 550 = \frac{40}{100} \times 550$$

$$= 220$$

Final Answer

220

MCQ 187

Find the area of a rectangle of length 22 cm and width 12 cm.

- A. 68 cm^2 B. 34 cm^2
C. 264 cm^2 D. 286 cm^2

Solution

$$A = l \times w$$

$$= 22 \times 12 = 264 \text{ cm}^2$$

Final Answer264 cm²**MCQ 188**

Evaluate $7x + 1$ for $x = 8$.

- A. 57 B. 8
C. 50 D. 9

Solution

$$7x + 1 \quad \text{at } x = 8$$

$$= 7(8) + 1 = 56 + 1 = 57$$

Final Answer

57

MCQ 189

A invests Rs. 45000 and B invests Rs. 55000 for the same period. If the profit is Rs. 34000, find A's share.

- A. Rs. 17000 B. Rs. 15300
C. Rs. 1700 D. Rs. 18700

Solution

$$A : B = 45000 : 55000 = 9 : 11$$

$$\text{A's share} = 34000 \times \frac{9}{20} = 15300$$

Final Answer

Rs. 15300

MCQ 190

Two varieties costing Rs. 55 and Rs. 75 per unit are mixed to obtain a mean price of Rs. 63. Find the ratio of lower-priced to higher-priced variety.

- A. 5 : 1 B. 2 : 3
C. 1 : 1 D. 3 : 2

Solution

$$\text{Lower : Higher} = (75 - 63) : (63 - 55)$$

$$= 12 : 8 = 3 : 2$$

Final Answer

3 : 2

MCQ 191

Solve $9x + 1 = 91$.

- A. 91 B. 10
C. 9 D. 11

Solution

$$9x + 1 = 91$$

$$9x = 91 - 1 = 90$$

$$x = \frac{90}{9} = 10$$

Final Answer $x = 10$ **MCQ 192**

Two angles of a triangle are 70° and 40° . Find the third angle.

- A. 70° B. 21°
C. 110° D. 20°

Solution

$$\angle A + \angle B + \angle C = 180^\circ$$

$$\angle C = 180^\circ - 70^\circ - 40^\circ = 70^\circ$$

Final Answer 70° **MCQ 193**

Solve $x^2 - 9x + 14 = 0$.

- A. -2, -7 B. 2, 7
C. 7, 8 D. 2, -7

Solution

$$x^2 - 9x + 14 = 0$$

$$(x - 2)(x - 7) = 0$$

$$x = 2 \quad \text{or} \quad x = 7$$

Final Answer $x = 2, 7$ **MCQ 194**

Evaluate $60 \div 10 + 3 \times 2$.

- A. 8 B. 12
C. 9 D. 18

Solution

$$60 \div 10 + 3 \times 2$$

$$= 6 + 6 = 12$$

Final Answer

12

MCQ 195

Find the next term: 8, 10, 12, 14, 16, ?.

- A. 16 B. 20
C. 18 D. 32

Solution

$$10 - 8 = 2, \quad 12 - 10 = 2$$

$$16 + 2 = 18$$

Final Answer

18

MCQ 196

A vehicle travels at 100 km/h for 4 hours. Find the distance covered.

- A. 400 km B. 396 km
C. 104 km D. 500 km

Solution

$$D = S \times T$$

$$= 100 \times 4 = 400 \text{ km}$$

Final Answer

400 km

MCQ 197Calculate $\frac{5}{8} + \frac{1}{4}$.

- A. $\frac{1}{2}$ B. $\frac{7}{8}$
C. $\frac{3}{8}$ D. 1

Solution

$$\begin{aligned} \frac{5}{8} + \frac{1}{4} &= \frac{5}{8} + \frac{2}{8} \\ &= \frac{7}{8} = \frac{7}{8} \end{aligned}$$

Final Answer $\frac{7}{8}$ **MCQ 198**

A sum of 99 is divided in the ratio 5 : 6. Find the smaller first share.

- A. 9 B. 10
C. 54 D. 45

Solution

$$5 : 6 \Rightarrow 5 + 6 = 11 \text{ parts}$$

$$1 \text{ part} = \frac{99}{11} = 9$$

$$\text{Required share} = 5 \times 9 = 45$$

Final Answer

45

MCQ 199Solve $x^2 - 11x + 24 = 0$.

- A. -3, -8 B. 3, -8
C. 8, 9 D. 3, 8

Solution

$$x^2 - 11x + 24 = 0$$

$$(x - 3)(x - 8) = 0$$

$$x = 3 \quad \text{or} \quad x = 8$$

Final Answer $x = 3, 8$ **MCQ 200**

If 20 items cost Rs. 2200, what is the cost of 25 items at the same rate?

- A. Rs. 2200 B. Rs. 2860
C. Rs. 2640 D. Rs. 2750

Solution

$$1 \text{ unit cost} = \frac{2200}{20} = 110$$

$$25 \text{ units cost} = 110 \times 25 = 2750$$

Final Answer

Rs. 2750

MOCK TEST 5 | 50 MIXED BASIC MATH MCQs

MCQ 201

Two varieties costing Rs. 65 and Rs. 85 per unit are mixed to obtain a mean price of Rs. 73. Find the ratio of lower-priced to higher-priced variety.

- A. 5 : 1 B. 1 : 1
C. 3 : 2 D. 2 : 3

Solution

$$\begin{aligned}\text{Lower : Higher} &= (85 - 73) : (73 - 65) \\ &= 12 : 8 = 3 : 2\end{aligned}$$

Final Answer

3 : 2

MCQ 202

A can finish a job in 24 days and B in 36 days. How long will they take together?

- A. 12 days B. 30 days
C. $\frac{72}{5}$ days D. $\frac{77}{5}$ days

Solution

$$\begin{aligned}\text{Combined rate} &= \frac{1}{24} + \frac{1}{36} = \frac{60}{864} \\ T &= \frac{864}{60} = \frac{72}{5} \text{ days}\end{aligned}$$

Final Answer

$\frac{72}{5}$ days

MCQ 203

A vehicle travels at 75 km/h for 2 hours. Find the distance covered.

- A. 148 km B. 77 km
C. 150 km D. 225 km

Solution

$$\begin{aligned}D &= S \times T \\ &= 75 \times 2 = 150 \text{ km}\end{aligned}$$

Final Answer

150 km

MCQ 204

The average of 15, 18, 21 and x is 19. Find x .

- A. 21 B. 24
C. 19 D. 27

Solution

$$\text{Total} = 19 \times 4 = 76$$

$$x = 76 - (15 + 18 + 21)$$

$$x = 24$$

Final Answer

24

MCQ 205

Calculate $\frac{5}{9} + \frac{2}{9}$.

- A. $\frac{7}{18}$ B. $\frac{7}{9}$
C. $\frac{1}{3}$ D. $\frac{8}{9}$

Solution

$$\begin{aligned}\frac{5}{9} + \frac{2}{9} &= \frac{5}{9} + \frac{2}{9} \\ &= \frac{7}{9} = \frac{7}{9}\end{aligned}$$

Final Answer

$\frac{7}{9}$

MCQ 206

A bag contains 15 red and 10 blue balls. One ball is drawn at random. Find the probability that it is red.

- A. $\frac{1}{25}$ B. $\frac{15}{26}$
C. $\frac{2}{5}$ D. $\frac{3}{5}$

Solution

$$\begin{aligned}P(\text{red}) &= \frac{\text{red outcomes}}{\text{total outcomes}} \\ &= \frac{15}{25} = \frac{3}{5}\end{aligned}$$

Final Answer

$\frac{3}{5}$

MCQ 207

A sum of 169 is divided in the ratio 6 : 7. Find the smaller first share.

- A. 13 B. 78
C. 14 D. 91

Solution

$$6 : 7 \Rightarrow 6 + 7 = 13 \text{ parts}$$

$$1 \text{ part} = \frac{169}{13} = 13$$

$$\text{Required share} = 6 \times 13 = 78$$

Final Answer

78

MCQ 208

A invests Rs. 60000 and B invests Rs. 80000 for the same period. If the profit is Rs. 12600, find A's share.

- A. Rs. 1800 B. Rs. 7200
C. Rs. 5400 D. Rs. 1801

Solution

$$A : B = 60000 : 80000 = 3 : 4$$

$$A's \text{ share} = 12600 \times \frac{3}{7} = 5400$$

Final Answer

Rs. 5400

MCQ 209

A candidate is 30th from the left and 35th from the right in a row. How many candidates are in the row?

- A. 66 B. 65
C. 64 D. 5

Solution

$$N = L + R - 1$$

$$= 30 + 35 - 1 = 64$$

Final Answer

64

MCQ 210

Two angles of a triangle are 25° and 95° . Find the third angle.

- A. 30° B. 60°
C. 31° D. 120°

Solution

$$\angle A + \angle B + \angle C = 180^\circ$$

$$\angle C = 180^\circ - 25^\circ - 95^\circ = 60^\circ$$

Final Answer 60° **MCQ 211**

A vehicle travels at 54 km/h for 5 hours. Find the distance covered.

- A. 59 km B. 324 km
C. 265 km D. 270 km

Solution

$$D = S \times T$$

$$= 54 \times 5 = 270 \text{ km}$$

Final Answer

270 km

MCQ 212

Two varieties costing Rs. 60 and Rs. 80 per unit are mixed to obtain a mean price of Rs. 68. Find the ratio of lower-priced to higher-priced variety.

- A. 2 : 3 B. 5 : 1
C. 3 : 2 D. 1 : 1

Solution

$$\begin{aligned} \text{Lower : Higher} &= (80 - 68) : (68 - 60) \\ &= 12 : 8 = 3 : 2 \end{aligned}$$

Final Answer

3 : 2

MCQ 213

Find the simple interest on Rs. 7500 at 4% per annum for 4 years.

- A. Rs. 450 B. Rs. 1950
C. Rs. 1200 D. Rs. 8700

Solution

$$\begin{aligned} SI &= \frac{PRT}{100} \\ &= \frac{7500 \times 4 \times 4}{100} = 1200 \end{aligned}$$

Final Answer

Rs. 1200

MCQ 214

Solve $10x + 9 = 119$.

- A. 119 B. 11
C. 12 D. 10

Solution

$$10x + 9 = 119$$

$$10x = 119 - 9 = 110$$

$$x = \frac{110}{10} = 11$$

Final Answer $x = 11$

MCQ 215

The ages of two persons are in the ratio 6 : 7 and their total age is 65 years. Find the younger age.

- A. 6 years B. 5 years
C. 35 years D. 30 years

Solution

$$\text{Age ratio} = 6 : 7, \quad \text{Total} = 65$$

$$1 \text{ part} = \frac{65}{13} = 5$$

$$\text{Younger age} = 6 \times 5 = 30$$

Final Answer

30 years

MCQ 216

Evaluate $4^3 \times 4^2$.

- A. 80 B. 4
C. 1024 D. 4096

Solution

$$4^3 \times 4^2 = 4^{3+2} = 4^5 \\ = 1024$$

Final Answer

1024

MCQ 217

The average of 14, 17, 20 and x is 18. Find x .

- A. 20 B. 23
C. 26 D. 18

Solution

$$\text{Total} = 18 \times 4 = 72$$

$$x = 72 - (14 + 17 + 20)$$

$$x = 23$$

Final Answer

23

MCQ 218

A bag contains 12 red and 8 blue balls. One ball is drawn at random. Find the probability that it is red.

- A. $\frac{1}{20}$ B. $\frac{2}{5}$
C. $\frac{4}{7}$ D. $\frac{3}{5}$

Solution

$$P(\text{red}) = \frac{\text{red outcomes}}{\text{total outcomes}} \\ = \frac{12}{20} = \frac{3}{5}$$

Final Answer $\frac{3}{5}$ **MCQ 219**

Solve $x^2 - 13x + 36 = 0$.

- A. -4, -9 B. 4, 9
C. 4, -9 D. 9, 10

Solution

$$x^2 - 13x + 36 = 0$$

$$(x - 4)(x - 9) = 0$$

$$x = 4 \quad \text{or} \quad x = 9$$

Final Answer $x = 4, 9$ **MCQ 220**

The ages of two persons are in the ratio 8 : 11 and their total age is 57 years. Find the younger age.

- A. 24 years B. 3 years
C. 29 years D. 33 years

Solution

$$\text{Age ratio} = 8 : 11, \quad \text{Total} = 57$$

$$1 \text{ part} = \frac{57}{19} = 3$$

$$\text{Younger age} = 8 \times 3 = 24$$

Final Answer

24 years

MCQ 221Evaluate $2x + 10$ for $x = 12$.

- A. 12 B. 22
C. 34 D. 32

Solution

$$2x + 10 \text{ at } x = 12$$

$$= 2(12) + 10 = 24 + 10 = 34$$

Final Answer

34

MCQ 222If $n(A) = 65$, $n(B) = 50$, and $n(A \cap B) = 20$, find $n(A \cup B)$.

- A. 135 B. 95
C. 20 D. 115

Solution

$$n(A \cup B) = n(A) + n(B) - n(A \cap B)$$

$$= 65 + 50 - 20 = 95$$

Final Answer

95

MCQ 223Evaluate $5x + 9$ for $x = 10$.

- A. 19 B. 14
C. 54 D. 59

Solution

$$5x + 9 \text{ at } x = 10$$

$$= 5(10) + 9 = 50 + 9 = 59$$

Final Answer

59

MCQ 224

A candidate is 35th from the left and 40th from the right in a row. How many candidates are in the row?

- A. 74 B. 5
C. 75 D. 76

Solution

$$N = L + R - 1$$

$$= 35 + 40 - 1 = 74$$

Final Answer

74

MCQ 225

If 30 items cost Rs. 3900, what is the cost of 40 items at the same rate?

- A. Rs. 5330 B. Rs. 5070
C. Rs. 3900 D. Rs. 5200

Solution

$$1 \text{ unit cost} = \frac{3900}{30} = 130$$

$$40 \text{ units cost} = 130 \times 40 = 5200$$

Final Answer

Rs. 5200

MCQ 226

Find the next term: 15, 25, 35, 45, 55, ?.

- A. 75 B. 65
C. 55 D. 110

Solution

$$25 - 15 = 10, \quad 35 - 25 = 10$$

$$55 + 10 = 65$$

Final Answer

65

MCQ 227Evaluate $2^6 \times 2^1$.

- A. 128 B. 64
C. 66 D. 32

Solution

$$2^6 \times 2^1 = 2^{6+1} = 2^7$$

$$= 128$$

Final Answer

128

MCQ 228Solve $x^2 - 15x + 50 = 0$.

- A. 10, 11 B. 5, 10
C. -5, -10 D. 5, -10

Solution

$$x^2 - 15x + 50 = 0$$

$$(x - 5)(x - 10) = 0$$

$$x = 5 \text{ or } x = 10$$

Final Answer $x = 5, 10$

MCQ 229

A invests Rs. 75000 and B invests Rs. 90000 for the same period. If the profit is Rs. 20900, find A's share.

- A. Rs. 1901 B. Rs. 9500
C. Rs. 1900 D. Rs. 11400

Solution

$$A : B = 75000 : 90000 = 5 : 6$$

$$A's \text{ share} = 20900 \times \frac{5}{11} = 9500$$

Final Answer

Rs. 9500

MCQ 230

Find 60% of 150.

- A. 45 B. 90
C. 100 D. 80

Solution

$$60\% \text{ of } 150 = \frac{60}{100} \times 150 \\ = 90$$

Final Answer

90

MCQ 231

Find the HCF of 56 and 98.

- A. 7 B. 14
C. 28 D. 154

Solution

$$56 = 14 \times 4, \quad 98 = 14 \times 7$$

$$\text{HCF}(56, 98) = 14$$

Final Answer

14

MCQ 232

Find the area of a rectangle of length 32 cm and width 16 cm.

- A. 96 cm² B. 48 cm²
C. 512 cm² D. 544 cm²

Solution

$$A = l \times w$$

$$= 32 \times 16 = 512 \text{ cm}^2$$

Final Answer512 cm²**MCQ 233**

Find the mean of 11, 13, 15, 17, 19.

- A. 15 B. 16
C. 19 D. 14

Solution

$$\bar{x} = \frac{11 + 13 + 15 + 17 + 19}{5} \\ = \frac{75}{5} = 15$$

Final Answer

15

MCQ 234

Solve $12x + 10 = 154$.

- A. 13 B. 12
C. 154 D. 11

Solution

$$12x + 10 = 154$$

$$12x = 154 - 10 = 144$$

$$x = \frac{144}{12} = 12$$

Final Answer $x = 12$ **MCQ 235**

Evaluate $72 \div 8 + 9 \times 2$.

- A. 27 B. 18
C. 36 D. 8

Solution

$$72 \div 8 + 9 \times 2$$

$$= 9 + 18 = 27$$

Final Answer

27

MCQ 236

If 25 items cost Rs. 3000, what is the cost of 30 items at the same rate?

- A. Rs. 3000 B. Rs. 3480
C. Rs. 3720 D. Rs. 3600

Solution

$$1 \text{ unit cost} = \frac{3000}{25} = 120$$

$$30 \text{ units cost} = 120 \times 30 = 3600$$

Final Answer

Rs. 3600

MCQ 237

If $n(A) = 60$, $n(B) = 45$, and $n(A \cap B) = 18$, find $n(A \cup B)$.

- A. 87 B. 123
C. 105 D. 18

Solution

$$\begin{aligned} n(A \cup B) &= n(A) + n(B) - n(A \cap B) \\ &= 60 + 45 - 18 = 87 \end{aligned}$$

Final Answer

87

MCQ 238

Find the mean of 10, 12, 14, 16, 18.

- A. 15 B. 13
C. 14 D. 18

Solution

$$\begin{aligned} \bar{x} &= \frac{10 + 12 + 14 + 16 + 18}{5} \\ &= \frac{70}{5} = 14 \end{aligned}$$

Final Answer

14

MCQ 239

Two angles of a triangle are 30° and 80° . Find the third angle.

- A. 21° B. 110°
C. 70° D. 20°

Solution

$$\begin{aligned} \angle A + \angle B + \angle C &= 180^\circ \\ \angle C &= 180^\circ - 30^\circ - 80^\circ = 70^\circ \end{aligned}$$

Final Answer 70° **MCQ 240**

A can finish a job in 14 days and B in 21 days. How long will they take together?

- A. $\frac{35}{2}$ days B. 7 days
C. $\frac{47}{5}$ days D. $\frac{42}{5}$ days

Solution

$$\begin{aligned} \text{Combined rate} &= \frac{1}{14} + \frac{1}{21} = \frac{35}{294} \\ T &= \frac{294}{35} = \frac{42}{5} \text{ days} \end{aligned}$$

Final Answer $\frac{42}{5}$ days**MCQ 241**

Find the next term: 20, 25, 30, 35, 40, ?.

- A. 50 B. 40
C. 45 D. 80

Solution

$$\begin{aligned} 25 - 20 &= 5, \quad 30 - 25 = 5 \\ 40 + 5 &= 45 \end{aligned}$$

Final Answer

45

MCQ 242

Calculate $\frac{7}{12} + \frac{1}{6}$.

- A. 1 B. $\frac{3}{4}$
C. $\frac{5}{12}$ D. $\frac{4}{9}$

Solution

$$\begin{aligned} \frac{7}{12} + \frac{1}{6} &= \frac{7}{12} + \frac{2}{12} \\ &= \frac{9}{12} = \frac{3}{4} \end{aligned}$$

Final Answer $\frac{3}{4}$ **MCQ 243**

A sum of 143 is divided in the ratio 4 : 9. Find the smaller first share.

- A. 55 B. 99
C. 44 D. 11

Solution

$$4 : 9 \Rightarrow 4 + 9 = 13 \text{ parts}$$

$$1 \text{ part} = \frac{143}{13} = 11$$

$$\text{Required share} = 4 \times 11 = 44$$

Final Answer

44

MCQ 244

An article costs Rs. 4000. It is sold at a profit of 5%. Find the selling price.

- A. Rs. 3800 B. Rs. 4300
C. Rs. 4200 D. Rs. 4005

Solution

$$SP = CP \left(1 + \frac{5}{100} \right)$$

$$= 4000 \times \frac{105}{100} = 4200$$

Final Answer

Rs. 4200

MCQ 245

Find the simple interest on Rs. 8000 at 11% per annum for 2 years.

- A. Rs. 960 B. Rs. 9760
C. Rs. 2560 D. Rs. 1760

Solution

$$SI = \frac{PRT}{100}$$

$$= \frac{8000 \times 11 \times 2}{100} = 1760$$

Final Answer

Rs. 1760

MCQ 246

Find the area of a rectangle of length 30 cm and width 15 cm.

- A. 45 cm² B. 90 cm²
C. 450 cm² D. 480 cm²

Solution

$$A = l \times w$$

$$= 30 \times 15 = 450 \text{ cm}^2$$

Final Answer450 cm²**MCQ 247**

Find 45% of 600.

- A. 280 B. 135
C. 260 D. 270

Solution

$$45\% \text{ of } 600 = \frac{45}{100} \times 600$$

$$= 270$$

Final Answer

270

MCQ 248

Evaluate $84 \div 12 + 5 \times 2$.

- A. 8 B. 24
C. 12 D. 17

Solution

$$84 \div 12 + 5 \times 2$$

$$= 7 + 10 = 17$$

Final Answer

17

MCQ 249

An article costs Rs. 4500. It is sold at a profit of 20%. Find the selling price.

- A. Rs. 5400 B. Rs. 4520
C. Rs. 5500 D. Rs. 3600

Solution

$$SP = CP \left(1 + \frac{20}{100} \right)$$

$$= 4500 \times \frac{120}{100} = 5400$$

Final Answer

Rs. 5400

MCQ 250

Find the HCF of 66 and 88.

- A. 22 B. 154
C. 11 D. 44

Solution

$$66 = 22 \times 3, \quad 88 = 22 \times 4$$

$$\text{HCF}(66, 88) = 22$$

Final Answer

22

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Percentage

$$p\% \text{ of } N = \frac{p}{100}N$$

Average

$$\bar{x} = \frac{\sum x}{n}$$

Profit

$$SP = CP \left(1 + \frac{p}{100} \right)$$

Simple Interest

$$SI = \frac{PRT}{100}$$

Work Rate

$$\frac{1}{T} = \frac{1}{A} + \frac{1}{B}$$

Speed

$$D = ST$$

Partnership

$$\text{Share} \propto C \times T$$

Alligation

$$\text{Low:High} = (H - M) : (M - L)$$

Linear Equation

$$ax + b = c \Rightarrow x = \frac{c - b}{a}$$

Indices

$$a^m a^n = a^{m+n}$$

Triangle

$$A + B + C = 180^\circ$$

Sets

$$n(A \cup B) = n(A) + n(B) - n(A \cap B)$$

Probability

$$P(E) = \frac{\text{favourable}}{\text{total}}$$

Ranking

$$N = L + R - 1$$