

Arithmetical Reasoning - Solved Examples

Q 1 – A train can cover a distance of 180 km in 5 hours. What is the speed of the train? Mention it in m/s.

Options :

A - 15

B - 20

C - 10

D - 25

Answer - C

Explanation

Speed of the train is $180/5 = 36$ kmph. $36 \times 5/18 = 10$ m/s.

Q 2 – P and Q can finish a work in 15 & 10 days. Q starts the work and leaves it after 5 days .The number of days in which P can complete the work is

Options :

A - 15/2 days

B - 25/2days

C - 30/2 days

D - 33/3 days

Answer - C

Explanation

Q 's 1 day work = $1/10$

Q worked for 5 days

Q 5 day work = $5/10 = 1/2$

Remaining work = $1 - 1/2 = 1/2$

Let P complete the remaining work in x days,

$$x/15 = 1/2$$

$$x = 7 \frac{1}{2}$$

Q 3 – P is thrice as good workman as Q and is therefore able to finish the work in 60 days less than Q. Q can finish the work in

Options :

A - 220 days

B - 25 days

C - 90 days

D - 33/3 days

Answer - C

Explanation

Let Q takes = x days

P takes = (x-60) days

Q 5 day work = $5/10 = 1/2$

Work done by P in 1 day = work done by Q in 1 day

$1/x - 60 = 3/x$, solving it

$x = 90$

Q 4 – Average of 5 terms is 10. Average of first two terms is 7, and last two terms is 13? What is the value of third term?

Options :

A - 8

B - 7

C - 10 days

D - 9

Answer - C

Explanation

Total of 5 terms = $10 \times 5 = 50$

Total of first two terms = $2 \times 7 = 14$

Total of last two terms = $13 \times 2 = 26$

Third term = $50 - (14 + 26) = 10$

Q 5 – A bag contain Rs 150 paisa and 25 paisa coins in the ratio 8:9:11. If the total money in the bag is Rs. 366. Find the number of Rs 25 paisa coins?

Options :

A - 245

B - 275

C - 264

D - 120

Answer - C

Explanation

Let number of coins of each denomination be x.

Then $1 \times 8x + \frac{1}{2} \times 9x + \frac{1}{4} \times 11x = 366$ $\frac{11x}{4} = 366$ $x = 24$.

Hence, 25 paise coins = $11x = 11 \times 24 = 264$.

Q 6 – Total weight of A & B is 120 kg. If A weights 30 kg more than B? What is ratio of B: A?

Options :

A - 0.4

B - 0.6

C - 2.4

D - 1.2

Answer - B

Explanation

Let B weight = x then

A weight = x + 30, then

Total weight = $x + x + 30 = 2x + 30 = 120$ $x = 45$. Hence, B weight = 45, A = 75

So ratio = $3:5 = 0.6$

Q 7 – The average age 6 students is 17.5 years. When one student left the class, average age becomes 16 years. What is age of the student who left?

Options :

A - 23 years

B - 25 years

C - 30 years

D - 33 years

Answer - B**Explanation**

Total age of 6 students = $17.5 \times 6 = 105$

After one left. Total age of 5 students = $5 \times 16 = 80$

Left student age = $105 - 80 = 25$ years

Q 8 – Rs. 41517 is distributed among A,B, and C in the ratio of 3:7:11? What is B's share?

Options :

A - Rs. 1123

B - Rs. 1125

C - Rs. 1508

D - Rs. 1133

Answer - C**Explanation**

B share = $41517 \times \frac{7}{21} = 1508$

Q 9 – 12 year old A is three times as old as his brother B. What should be A's age to be twice as that of B?

Options :

A - 16

B - 46

C - 24

D - 17

Answer - A**Explanation**

A's present age = 12 years, B's present age = 4 years. Let A be twice as old as B after x years from now. Then, $12 + x = 2(4 + x)$ $12 + x = 8 + 2x$ $x = 4$.

Hence, A's required age = $12 + x = 16$ years

Q 10 – The addition of ages of Ramesh and Bighnesh is 45 years 4 years ago. What will be the summation of their ages 6 years hence?

Options :

A - 55

B - 60

C - 65

D - 66

Answer - C**Explanation**

The summation of ages will be $45 + 10 + 10 = 65$. Hence, option C.