Banking Daily Quiz Blog - April 20

ENTRI

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1. **A can complete a project in 20 days and B can complete the same project in 30 days. If A and B start working on the project together and A quits 10 days before the project is completed, in how many days will the project be completed?**

A **18 days**

B 27 days

C 26.67 days

D 16 days

E 12 days

Solution

Let the project will be completed in x days.

According to question, $\frac{x-10}{20} + \frac{x}{30} = 1$

$\Rightarrow \frac{3x-30+2x}{60} = 1$

$\Rightarrow 5x - 30 = 60 \Rightarrow 5x = 90$

x = 18 days

2. **A runs 25% faster than B and is able to allow B a lead of 7 m to end a race in dead heat. What is the length of the race?**

A 10 m

B 25 m

C 45 m

D 15 m

E **35 m**

Solution

Let the length of the race = d metre

B's speed = x;

A's speed $x \times \frac{125}{100} = \frac{5x}{4}$

Because times of A and B are equal.

$\therefore \frac{d}{\frac{5x}{4}} = \frac{d-4}{x}$

$\Rightarrow$ 4d - 5d - 35

$\Rightarrow d = 35$

3. **A train travelling at the speed of 100 km/hr overtakes a motorbike travelling at 64 km/hr in 40 sec. What is the length of the train in meters?**

A 1777 m

B 1822 m

C **400 m**

D 1111 m

E 600 m

Solution

Let the length of the train be x metres

According to question,

$$40 = \frac{x}{(100-64)\times\frac{5}{18}} = \frac{x}{10}$$

(since both vehicles are moving in same direction so relative speed = 100 - 64 = 36 km/hr)

x = 40 × 10 = 400 m

4. **A boat running upstream takes 8 hours 48 minutes to cover a certain distance, while it takes 4 hours to cover the same distance running downstream. What is the ratio between the speed of the boat in still water and speed of the current?**

A 2 : 1

B 3 : 2

C **8 : 3**

D 3 : 5

E 8 : 2

Solution

Let the speed of boat in still water be x km/hr and the speed of current be y km/hr.

According to question,

$8 + \frac{48}{60} \times (x - y) = 4 \times (x - y)$

$\Rightarrow (8 + \frac{4}{5})(x - y) = 4(x - y)$

$\Rightarrow \frac{44}{5}(x - y) = 4(x - y)$

$\Rightarrow 11x - 11y = 5x + 5y \Rightarrow 6x = 16\ y$

$\Rightarrow \frac{x}{y} = \frac{16}{6} = \frac{8}{3} \Rightarrow x : y = 8 : 3$

5. **A, B and C jointly thought of engaging themselves in a business venture. It was agreed that A would invest Rs. 6,500 for 6 months, B, Rs. 8,400 for 5 months and C, Rs. 10,000 for 3 months. A wants to be the working member for which, he receives 5% of the profits. If the profit earned is Rs. 7,400, then what is the share of B in the profit?**

A Rs 1900

B **Rs 2660**

C Rs 2800

D Rs 2840

E Rs 2900

Solution

The ratio of the equivalent investments of A, B and C

$= (6500 \times 6) : (8400 \times 5) : (10000 \times 3) = 13 : 14 : 10$

Share of B in the profit $= 7400 \times \frac{95}{100}[\frac{14}{13+14+10}]$

$= 74 \times 95 \times \frac{14}{37} = Rs\ 2660$

6. **How much time will it take for an amount of Rs. 900 to yield Rs. 81 as interest at 4.5% per annum of simple interest?**

A **2 years**

B 3 years

C 1 year

D 4 years

E 5 years

Solution

Let time be t years.

According to question, $\frac{900\times4.5\times t}{100} = 81$

$\Rightarrow t = \frac{9}{4.5} = 2 years$

7. **Mr. Thomas invested an amount of Rs 13,900 divided in two different schemes A and B at the simple interest rate of 14% p.a. and 11% p.a. respectively. If the total amount of simple interest earned in 2 years be Rs 3,508 what was the amount invested in Scheme B?**

A **Rs 6400**

B Rs 7200

C Rs 6500

D Rs 7500

E Rs 7000

Solution

Let the amount invested in scheme B =Rs x

The amount invested in scheme A = Rs (13900 – x)

According to question,

$$\frac{(13900-x)\times 14\times 2}{100} - \frac{x\times 11\times 2}{100} = 3058$$

$\Rightarrow$ 13900 × 28 - 28x + 22x = 350800

⇒ 389200 - 6x = 350800

⇒ 6x = 38400

⇒ x = Rs 6400

8. **A bag contains 2 red 3 green and 2 blue balls. Two balls are drawn at random. What is the probability that none of the balls drawn is blue?**

A $\frac{10}{21}$

B $\frac{11}{21}$

C $\frac{2}{7}$

D $\frac{5}{7}$

E $\frac{3}{7}$

Solution

Total number of balls = 7

$\therefore$ Total possible outcomes = ${}^{7}C_{2} = \frac{7\times6}{1\times2} = 21$

Favourable outcomes = Number of ways of drawing 2 balls out of 2 red and 3 green balls = ${}^{5}C_{2} = \frac{5\times4}{1\times2} = 10$

$\therefore$ Required probability = $\frac{10}{21}$

9. **A can contains a mixture of milk and water in the ratio 7 : 5. When 9 liters of mixture is drawn off and the can is filled with same quantity of water, then the ratio of milk and water becomes 7 : 9. What is the quantity of milk in the initial mixture?**

A 10 litres

B 20 litres

C **21 litres**

D 25 litres

E 29 litres

Solution

Let the quantity of milk in initial mixture = 7x litres, then the quantity of water in initial mixture = 5x litres

According to question,

$$\frac{7x-9\times\frac{7}{12}}{5x-9\times\frac{5}{12}+9}=\frac{7}{9}$$

$$\Rightarrow \frac{84x-63}{60x-45+108}=\frac{7}{9}$$

$\Rightarrow 36x - 27 = 20x + 21$

$\Rightarrow 16x = 48 \Rightarrow x = 3$

10. **The difference between the area of circular field and the area of a square field is 168 sq m. Side of the square field is equal to the diameter of the circular field. What is the cost of fencing the square field at the rate of Rs. 20 per metre? (in Rs.)**

A Rs 2480

B Rs 2420

C Rs 2520

D **Rs 2240**

E Rs 2380

Solution

Let the side of the square = a metre

and the radius of the circle = r metre

According to question,

a = 2r $\Rightarrow a^2 - \pi r^2 = 16$

$(2r)^2 - \pi r^2 = 168$

$4r^2 - \frac{22}{7}r^2 = 168$

$r^2(28 - 22) = 168 \times 7$

$r^2 = \frac{168 \times 7}{6} = 198 \times 7$

r = 14 m

Side of square = a = 2r = 2 × 14 = 28 m

Perimeter of square = 4a = 4 × 28 = 112 m

∴ Required cost = 112 × 20 = Rs 2240