

# Banking Daily Quiz Blog - March 10



1. A vessel contain mixture of milk and water in the ratio of 6 : 1 respectively. If 21 liters mixture taken out and replaced with 77 liters of milk, then the resultant mixture becomes twice of the initial mixture. Find the quantity of the initial mixture?

**A** 56 liters

**B** 52 liters

**C** 50 liters

**D** 45 liters

**E** None of these

### Solution

Let total initial mixture =  $7x$

ATQ –

$$(6x - 21 \times \frac{6}{7} + 77) + (x - 21 \times \frac{1}{7}) = 14x$$

$$7x = 56$$

$$x = 8$$

So, quantity of the initial mixture =  $7x$

= 56 liters

2. Length and speed of train A is 'L' meters and 108 km/hr. It crosses a platform; whose length is 60% less than the length of train A in 28 sec. If train B crosses the same platform in 24 sec running at the speed of 90 km/hr., then find the time taken by train A to cross train B running in same direction?

A 172 sec

B 182 sec

C 192 sec

D 162 sec

E None of these

### Solution

ATQ –

$$\frac{L + L \times \frac{40}{100}}{108 \times \frac{5}{18}} = 28$$

$$1.4L = 840 L$$

$$= 600 \text{ meters}$$

$$\text{And, length of platform} = 0.4 \times 600 = 240 \text{ meters}$$

Let length of train B = X meters

$$\frac{X+240}{24} = 90 \times \frac{5}{18}$$

$$X = 360 \text{ meters}$$

$$\text{Required time} = \frac{600+360}{(108-90) \times \frac{5}{18}} = \frac{960}{5} = 192 \text{ sec}$$

3. A can complete 45% of a work in  $11\frac{1}{4}$  days and B can do 30% of same work in 3 days. If A, B & C can do the same work in  $6\frac{1}{4}$  days, then find that C is how much percent less efficient than A?

A 60%

B 50%

C 40%

D 30%

E None of these

### Solution

Let total work =  $90x$  unit

$$\text{Efficiency of A} = 90x \times \frac{45}{100} \times \frac{4}{11} = 3.6x \text{ unit/day}$$

$$\text{Efficiency of B} = 90x \times \frac{30}{100} \times \frac{1}{3} = 9x \text{ unit/day}$$

$$\text{Efficiency of (A + B + C)} = 90x \times \frac{4}{25} = 14.4x \text{ unit/day}$$

$$\text{So, efficiency of C} = 14.4x - (3.6x + 9x) = 1.8x \text{ units/day}$$

$$\text{Required percentage} = \frac{3.6x - 1.8x}{3.6x} \times 100 = 50\%$$

4. **Six years ago, the ratio of age of Kunal to Sagar was 6 : 5 and four years hence ratio of age of Kunal to Sagar will be 11 : 10. Find the present age of Sagar?**

A 12 years

B 13 years

C 14 years

D 15 years

E 16 years

### Solution

Let six years ago age of Kunal and Sagar was  $6x$  and  $5x$  respectively

ATQ –

$$\frac{6x+10}{5x+10} = \frac{11}{10}$$

$$60x + 100 = 55x + 110$$

$$5x = 10$$

$$x = 2 \text{ years}$$

So, present age of Sagar =  $5 \times 2 + 6 = 16$  years

5. A and B entered into business by making investment of Rs. 2400 and 2800 respectively. After six months A left the business and after four more months C joined the business with capital 20% more than A's

investment. If at the end of year sum of profit share of A and C is Rs. 4200, then find total profit?

A Rs. 10200

B Rs. 11200

C Rs. 12200

D Rs. 13200

E None of these

**Solution**

Profit ratio of A, B & C respectively =  $2400 \times 6 : 2800 \times 12 : 2400 \times 1.2 \times 2$

=  $14400 : 33600 : 5760$

=  $15 : 35 : 6$

Let total profit = Rs.  $56x$

Given,  $15x + 6x = 4200$

$x = \text{Rs. } 200$

So, total profit =  $56 \times 200 = \text{Rs. } 11200$

6. A man borrowed Rs. Rs.12000 on compound interest at the rate of 20% per annum and at the end of first year man again borrowed Rs. 'X' more on compound interest at the same rate of interest. If at the end of second year, man paid total amount of Rs.20400, then find value of 'X'?

A Rs.2400

B Rs.2600

C Rs.2500

D Rs.2200

E None of these

### Solution

$$\text{First year total Interest} = 12000 \times \frac{20}{100} = \text{Rs. } 2400$$

$$\text{For second year total amount} = (12000 + 2400 + X)$$

$$(12000 + 2400 + X) \times \frac{120}{100} = 20400$$

$$X = \text{Rs. } 2600$$

7. 'A' invested Rs. X in a scheme on simple interest at the rate of 20% p.a. for two years and 'B' invested Rs. Y in same scheme. If interest got by A is Rs. 480 more than that of B after two years. If X is 25% more than Y, then find value sum of amount invested by A & B?

A Rs.11400

B Rs.11800

C Rs.10400

D Rs.10800

E None of these

### Solution



Given,  $X = 1.25Y$

ATQ –

$$1.25Y \times 2 \times \frac{20}{100} - Y \times 2 \times \frac{20}{100} = 480$$

$$Y = 4800$$

$$X = 1.25 \times 4800$$

$$X = \text{Rs. } 6000$$

$$\text{Required sum} = 4800 + 6000 = \text{Rs. } 10800$$

8. A shopkeeper marked the price of an article 25% above the cost price and allowed two successive discounts of 10% and 5% respectively. If shopkeeper made a profit of Rs. 89.1, then find at what price shopkeeper sold the article to make a profit of 40%?

A Rs.1814.4

B Rs.1844.8

C Rs.1444.4

D Rs.1644.4

E None of these

### Solution

Let cost price of an article = Rs.  $100x$

Marked price of an article = Rs.  $125x$

Selling price of an article =  $125x \times \frac{90}{100} \times \frac{95}{100} = Rs. 106.875x$

ATQ —

$$106.875x - 100x = 89.1 x = 12.96$$

Cost price of an article = Rs. 1296

For 40% of profit Selling price =  $1296 \times \frac{140}{100} = Rs. 1814.4$

9. A box contains 12 red, 6 green and 'x' yellow balls. Probability of choosing one green ball out of the box is  $\frac{2}{9}$ , then find the probability of choosing one ball which can be either red or yellow?

A  $\frac{4}{9}$

B  $\frac{2}{9}$

C  $\frac{5}{9}$

D  $\frac{7}{9}$

E None of these

### Solution

Required Probability = 1 – Probability of choosing one green ball

$$= 1 - \frac{6}{27} = \frac{7}{9}$$

10. When digits of the two digits number are reversed, number obtained is 9 less than twice of the original number. Also, the new number obtained is 175% of the original number. Find the sum of the digits of the number?

**A** 9

**B** 10

**C** 11

**D** 12

**E** 13

### Solution

Let the unit digit and tens digit of the number be y and x respectively.

Original number =  $(10x + y)$

ATQ

$$1.75(10x + y) = 10y + x$$

$$x : y = 1 : 2$$

let the unit and tens digits be  $2a$  and  $1a$  respectively

$$\text{Now, } (21a) + 9 = 2(12a)$$

$$a = 3$$

$$\text{unit digit} = 6$$

$$\text{and tens digit} = 3$$

$$\text{sum of both the digits} = 9$$

