Banking Daily Quiz Blog - March 10





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
С	50 liters
D	45 liters
E	None of these

Solution

Let total initial mixture = 7x

ATQ –

$$(6x-21 imes rac{6}{7}+77)+(x-21 imes rac{1}{7})=14x$$

$$7x = 56$$

$$\mathbf{X} = \mathbf{8}$$

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
С	192 sec
D	162 sec
E	None of these

Solution

ATQ –

$$rac{L+L imesrac{40}{100}}{108 imesrac{5}{18}}=28$$

1.4L = 840 L

= 600 meters

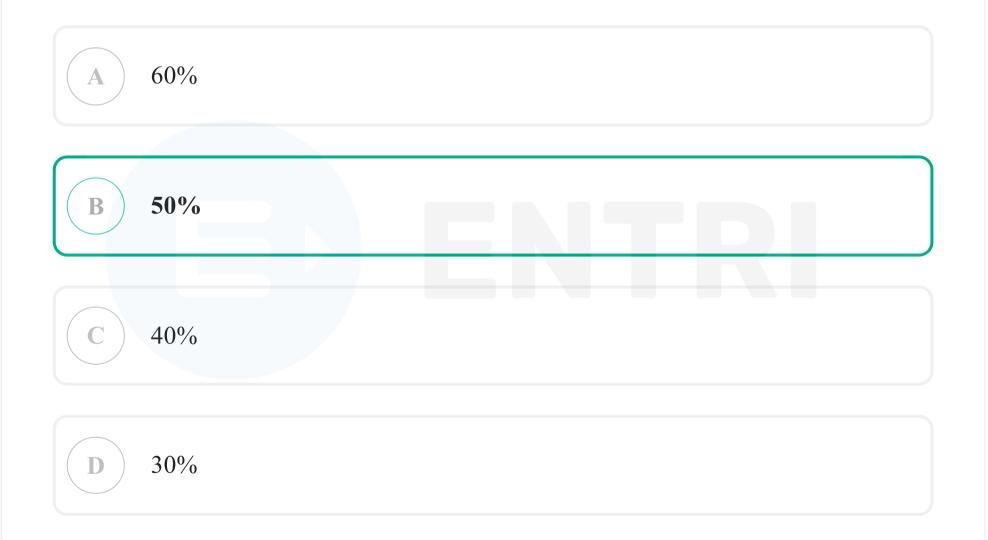
And, length of platform = $0.4 \times 600 = 240$ meters

Let length of train B = X meters

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

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

3. A can complete 45% of a work in 11¹/₄ days and B can do 30% of same work in 3 days. If A, B & C can do the same work in 6¹/₄ days, then find that C is how much percent less efficient than A?



E None of these

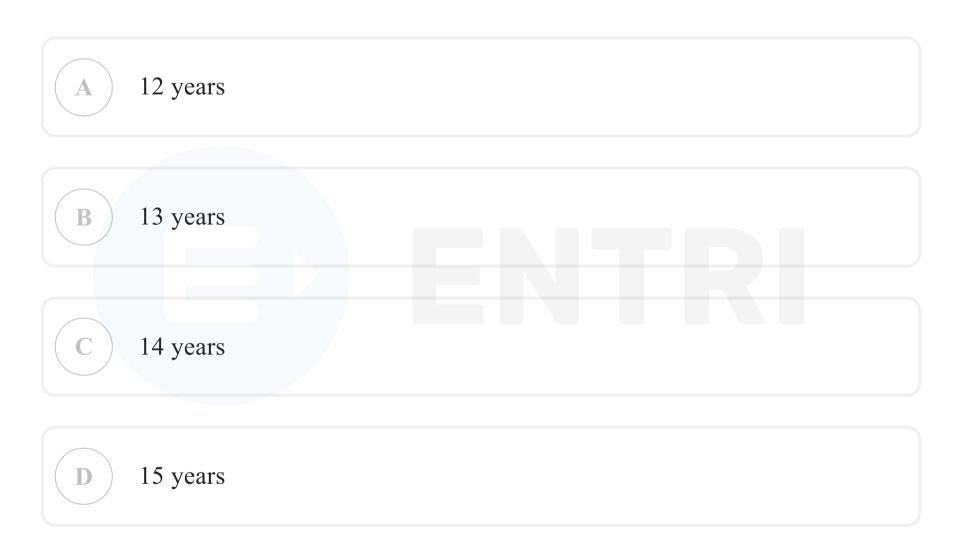
Solution

Let total work = 90x unit

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

Efficiency of $B = 90x \times \frac{30}{100} \times \frac{1}{3} = 9x$ unit/day Efficiency of $(A + B + C) = 90x \times \frac{4}{25} = 14.4x$ unit/day So, efficiency of C = 14.4x - (3.6x + 9x) = 1.8x units/day 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?

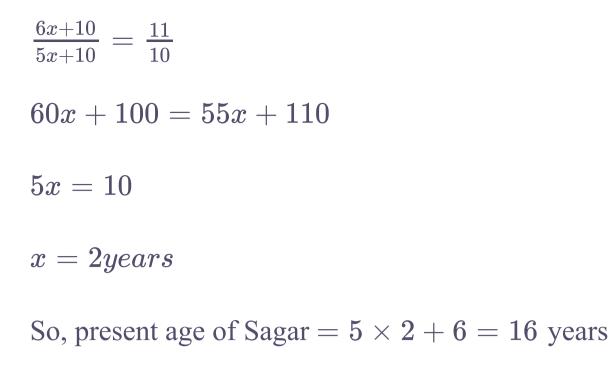




Solution

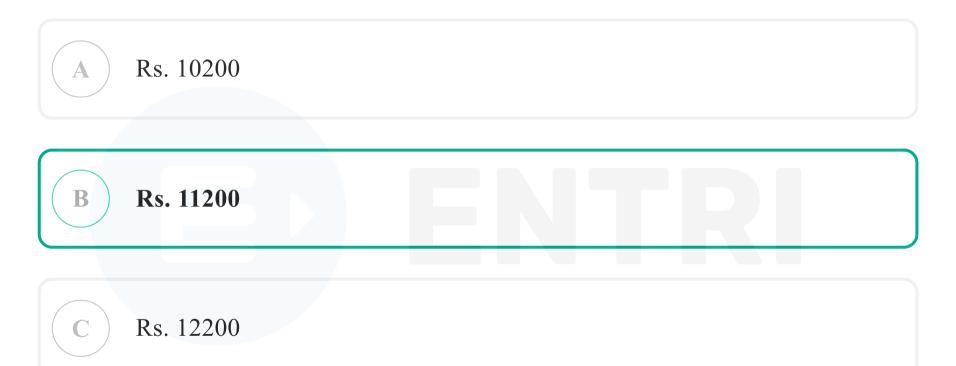
Let six years ago age of Kunal and Sagar was 6x and 5x respectively

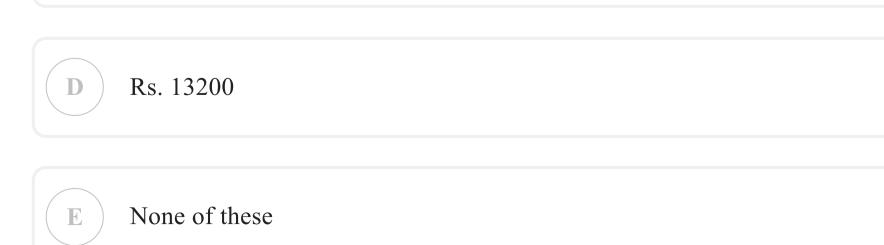
ATQ –



5. A and B entered into business my 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?



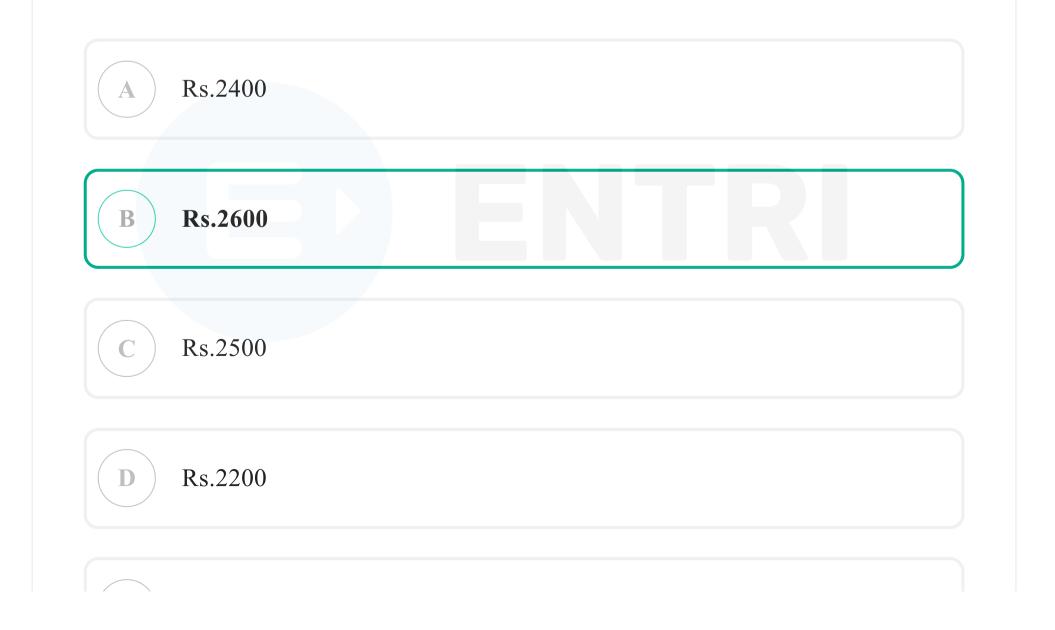




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Profit ratio of A, B & C respectively = 2400 \times 6 : 2800 \times 12 : 2400 \times 1.2 \times 2
= 14400 : 33600 : 5760
= 15 : 35 : 6
Let total profit = Rs. 56x
Given, 15x + 6x = 4200
x = Rs. 200
So, total profit = 56 \times 200 = Rs. 11200
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JAM VAV A

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'?



Solution

E

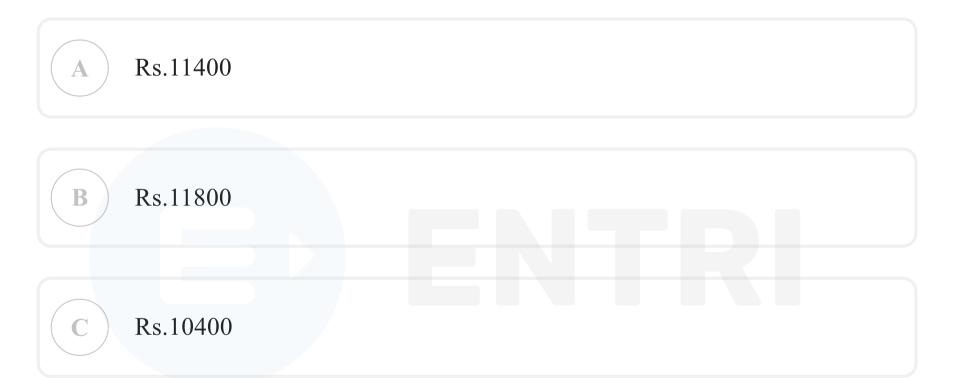
First year total Interest = $12000 \times \frac{20}{100} = Rs.2400$

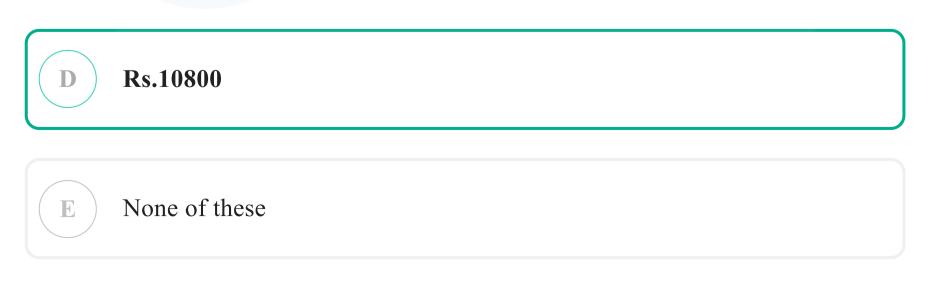
For second year total amount = (12000 + 2400 + X)

 $(12000 + 2400 + X) imes rac{120}{100} = 20400$

X =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?

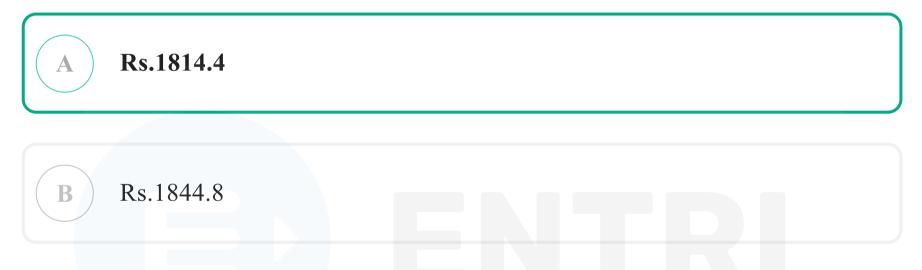


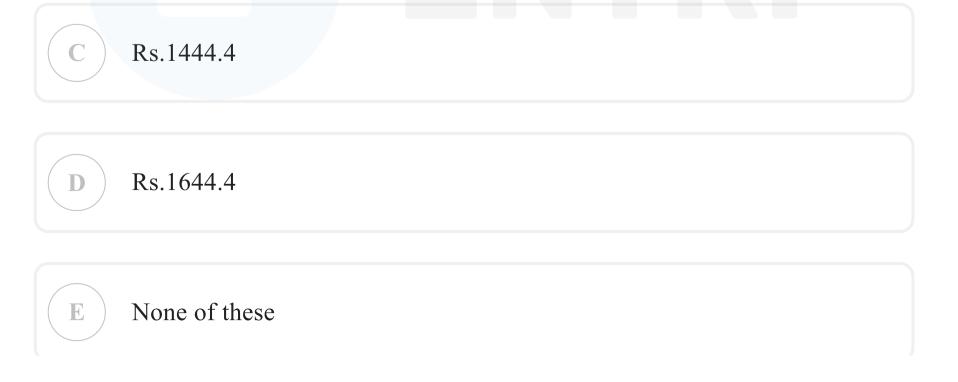




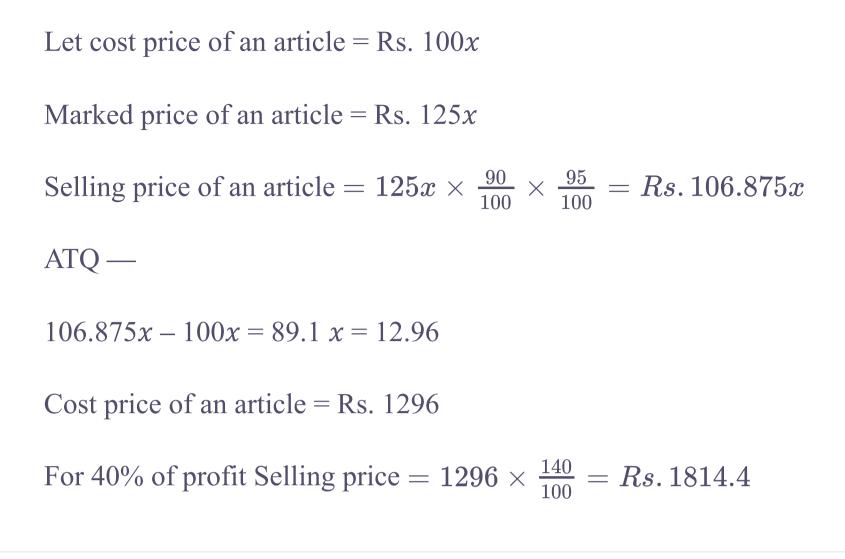
Given, X = 1.25Y ATQ – $1.25Y \times 2 \times \frac{20}{100} - Y \times 2 \times \frac{20}{100} = 480$ Y = 4800 $X = 1.25 \times 4800$ X = Rs.6000Required sum = 4800 + 6000 = Rs.10800

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%?





Solution



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?



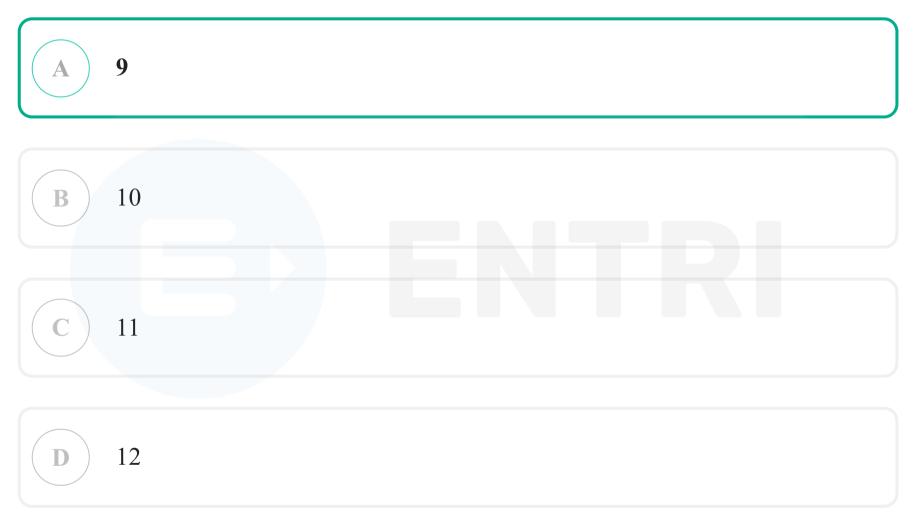
C $\frac{5}{9}$	
$\frac{7}{9}$	
E None of these	

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?





Solution

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

Original number = (10 x + y)

ATQ

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

x : y = 1 : 2

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

Now, (21a) + 9 = 2(12a)

a = 3

unit digit = 6

and tens digit = 3

sum of both the digits = 9



