Banking Daily Quiz Blog - July 1

ENTRI

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1. **A lady spent 10% of her salary on bonds, 15% of the remaining salary on groceries and gives Rs. 30600 to her husband. Find the difference between the amount spent on groceries and bonds.**

A Rs. 1800

B **Rs. 1400**

C Rs. 2000

D Rs. 1200

E Rs. 1600

Solution

Let the total salary of Lady be S

According to the question,

$S \times \frac{90}{100} \times \frac{85}{100} = 30600$

$\Rightarrow$ S = 40000

$\therefore$ Total salary of Lady = S = Rs. 40000

Amount spent on bonds = $40000 \times \frac{10}{100} = Rs. 4000$

Amount spent on groceries =$40000 \times \frac{90}{100} \times \frac{15}{100} = Rs. 5400$

The difference between the amount spent on groceries and bonds = 5400 – 4000 = Rs. 1400

2. **In a 64 litre mixture of milk and water, the ratio of milk and water is 15 : 1. When 24 litre of mixture is removed and 5 litre of milk and water each is added, then find the difference between the quantity of milk and water in the final mixture.**

A 32 litre

B 40 litre

C **35 litre**

D 45 litre

E 42 litre

Solution

Given

The ratio of milk and water is 15 : 1

Let quantity of milk be 15x and water be x

Now

$15x + x = 64$

$\Rightarrow 16x = 64$

$\Rightarrow x = 4$

$\therefore$ Quantity of milk in initial mixture = $15x = 15 \times 4 = 60$ litre

And quantity of water in initial mixture = $x = 4$ litre

24 litre of mixture is removed

$\therefore$ The total new mixture = 64 - 24 = 40 litre

Again

The ratio of milk and water is 15 : 1

Let quantity of milk be 15x and water be x

Now

$15x + x = 40$

$\Rightarrow 16x = 40$

$\Rightarrow x = \frac{5}{2}$

$\therefore$ Quantity of milk in new mixture = $15x = 15 \times \frac{5}{2} = 37.5$ litre

And quantity of water in new mixture = $x = 2.5$ litre

After adding 5 litre milk total quantity of milk = 37.5 + 5 = 42.5 litre

Also After adding 5 litre water total quantity of water = 2.5 + 5 = 7.5 litre

$\therefore$ The difference between the quantity of milk and water in the final mixture = 42.5 - 7.5 = 35 litre

3. **Tap A and B fill a tank in 6 hours and 8 hours respectively and tap C empties the tank in $12\frac{1}{2}$ hours. If all the taps are opened simultaneously, then in how much time(approximate) the tank will be half-filled?**

A 2.1 hours

B 2.4 hours

C 2.7 hours

D 2.9 hours

E None of these

Solution

Tap A can fill a tank in 6 hours.

$\Rightarrow$ Efficiency of Tap A = $\frac{1}{6}$

Tap B can fill a tank in 8 hours.

$\Rightarrow$ Efficiency of Tap B = $\frac{1}{8}$ hours

Tap C can empties the tank in $12\frac{1}{2} = \frac{25}{2}$ hours

⇒ Efficiency of Tap C = $\frac{2}{25}$

If all the taps are opened simultaneously, the tank filled in 1 hour = $\frac{1}{6} + \frac{1}{8} - \frac{2}{25} = \frac{127}{600}$

⇒ The approximate time in which the tank will be filled = $\frac{600}{127}$ = 4.72 hours

∴ The approximate time in which the tank will be half-filled = 2.36 ≈ 2.4 hours.

4. **Sum of the length and width of a rectangle (R1) is 78 cm and of rectangle (R2) is 52 cm. What is the area of a square whose side is $\frac{1}{4}$ th of the difference of the perimeter of R1 and R2?**

A $144\ cm^2$

B $169\ cm^2$

C $256\ cm^2$

D $225\ cm^2$

E None of these

Solution

Let length of rectangle be L and width be B

In rectangle (1)

L + B = 78 cm ---(Given)

We know that perimeter of rectangle = 2(L + B)

∴ Perimeter of rectangle = 2 × 78 = 156 cm

In rectangle (2)

L + B = 52 cm

Perimeter of rectangle = 2(L + B) = 2 × 52 = 104 cm

Difference of perimeter of rectangle (1) and rectangle (2) = 156 – 104 = 52 cm

Given

Side of square = difference $\times \frac{1}{4} = 52 \times \frac{1}{4} = 13cm$

∴ Area of square = (Side)2 = $(13)^2 = 169cm^2$

What should come in place of the question mark '?' in the following number series?

5. **100000, 20000, 4000, 800, 160, ?**

A 25

B 80

C 65

D **32**

E 45

Solution

$100000 \times \frac{1}{5} = 20000$

$20000 \times \frac{1}{5} = 4000$

$4000 \times \frac{1}{5} = 800$

$800 \times \frac{1}{5} = 160$

$160 \times \frac{1}{5} = 32$

What should come in place of the question mark '?' in the following number series?

6. **16, 17, 21, 30, 46, ?**

A 50

B 68

C **71**

D 75

E 78

Solution

$16 + 1^2 = 16 + 1 = 17$

$17 + 2^2 = 17 + 4 = 21$

$21 + 3^2 = 21 + 9 = 30$

$30 + 4^2 = 30 + 16 = 46$

$46 + 5^2 = 46 + 25 = 71$

What should come in place of the question mark '?' in the following number series?

7. **22, 41, 31, 50, 40, ?**

A 54

B 75

C 60

D 64

E 59

Solution

22 + 19 = 41

41 – 10 = 31

31 + 19 = 50

50 – 10 = 40

40 + 19 = 59

What should come in place of the question mark '?' in the following number series?

8. **16, 8, 8, 16, ?, 512**

A 64

B 75

C 34

D 40

E 55

Solution

$16 \times \frac{1}{2} = 8$

$8 \times 1 = 8$

$8 \times 2 = 16$

$16 \times 4 = 64$

$64 \times 8 = 512$

What should come in place of the question mark '?' in the following number series?

9. **600, 590, 610, 580, 620, ?**

A 560

B 570

C 565

D 575

E 540

Solution

The series follows the following pattern:

600 - 10 = 590

590 + 20 = 610

610 - 30 = 580

580 + 40 = 620

620 - 50 = 570

∴ The next term in the series is 570

What should come in place of the question mark '?' in the following number series?

10. **526, 518, 491, 427, 302, ?**

A 267

B 98

C **86**

D 56

E 46

Solution

The series follows the following pattern:

$526 - 2^3 = 518$

$518 - 3^3 = 491$

$491 - 4^3 = 427$

$427 - 5^3 = 302$

$302 - 6^3 = 86$

∴ The next term in the series will be 86

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