Ratio and Proportion Questions for SSC

Ratio and Proportion Quiz 2

Directions: Kindly Study the following questions carefully and choose the right answer:

1. If a : b = 2 : 3 and b : c = 5 : 7, find the value of a : b : c ?

A. 5 : 7 : 13   B. 10 : 15 : 17   C. 10 : 15 : 21   D. 7 : 15 : 13

2. 0What is the fourth proportional to 3, 7, 15.

A. 15   B. 25   C. 30   D. 35

3. What is the mean proportion between 8 and 32.

A. 2   B. 4   C. 16   D. 32

4. What is the sub-duplicate ratio of 16 : 25.

A. 2 : 3   B. 4 : 5   . 3 : 7   D. None

5. Divide Rs.1024 in the ratio 9 : 7?

A. 576, 448   B. 235, 365   C. 123, 231   D. None

6. Divide 581 among A, B, C so that 4A = 5B = 7C.

A. 145, 278, 178   B. 245, 196, 140   C. 189, 232, 140   D. None

7. What must be added to each term of the ratio 49 : 68 so that it becomes 3 : 4?

A. 4   B. 8   C. 12   D. 22

8. If X and Y shared Rs.1100 in the ratio 1 : 10, how much did X get ?

A. 25   B. 50   C. 75   D. 100

9. 0.5 of a number is equal to 0.07 of another. The ratio of the numbers is:

A. 1 : 14   B. 5 : 7   C. 7 : 50   D. 50 : 7

10. In the ratio which is equal to 5 : 8, the antecedent is 40, then the consequent is:

A. 25   B. 48   C. 64   D. None

Correct Answers:

1	2	3	4	5	6	7	8	9	10
C	D	C	B	A	B	B	D	C	C

Explanations:

1.

Given $\dfrac{a}{b} = \dfrac{2}{3}$ and $\dfrac{b}{c} = 5 : 7$

$\therefore \ \dfrac{a}{c} = \left(\dfrac{a}{b} \times \dfrac{b}{c}\right) = \left(\dfrac{2}{3} \times \dfrac{5}{7}\right) = 10.$

So, a : c = 10 : 21.

Also, a : b = 2 : 3 and b : c = 5 : 7

$= \dfrac{3}{5} \times 5 : \dfrac{3}{5} \times 7 = 3 : \dfrac{21}{5}$

$\therefore \ \ a : b : c = 2 : 3 : \dfrac{21}{5} = 10 : 15 : 21.$

Hence, option C is correct.

2.

Let the fourth proportion be x. Then,

3 : 7 :: 15 : x.

$\therefore \ \ 3x = 7 \times 15$

$\Rightarrow \ x = \left(\dfrac{7 \times 15}{3}\right) = 35.$

Hence, option D is correct.

3.

Mean proportion = $\sqrt{8 \times 32} = \sqrt{256} = 16$.

Hence, option C is correct.

4.

Sub-duplicate ratio of 16 : 25 is $\sqrt{16} : \sqrt{25}$ i.e. 4 : 5.

Hence, option B is correct.

5.

Sum of terms = (9 + 7) = 16.

First part = Rs. $\left(1024 \times \dfrac{9}{16}\right)$ = Rs. 576.

Second part = Rs. $\left(1024 \times \dfrac{7}{16}\right)$ = Rs. 448.

Hence, option A is correct.

6.

Let 4A = 5B = 7C = k. Then,

$A = \dfrac{k}{4}$, $B = \dfrac{k}{5}$ and $C = \dfrac{k}{7}$.

$\therefore$ A : B : C = $\dfrac{k}{4} : \dfrac{k}{5} : \dfrac{k}{7}$ = 35 : 28 : 20

$\therefore$ A's share = $\left(581 \times \dfrac{35}{83}\right)$ = 245;

B's share = $\left(581 \times \dfrac{28}{83}\right)$ = 196;

C's share = $\left(581 \times \dfrac{20}{83}\right)$ = 140.

Hence, option B is correct.

7.

Let x must be added. then,

$\dfrac{49 + x}{68 + x} = \dfrac{3}{4} \Leftrightarrow 4(49 + x) = 3(68 + x) \Leftrightarrow x = 8.$

Hence, option B is correct.

8.

X's share = Rs. $\left(1100 \times \dfrac{1}{11}\right)$ = Rs. 100.

Hence, option D is correct.

9.

$0.5A = 0.07B \Leftrightarrow \dfrac{A}{B} = \dfrac{0.07}{0.5} = \dfrac{7}{50},$ i.e. 7 : 50.
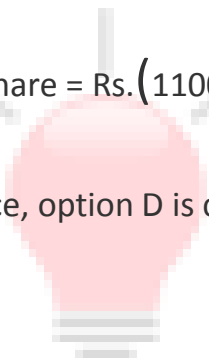
Hence, optioon C is correct.

10.

Let antecedent = 5x and consequent = 8x.

Now, 5x = 40 ⇒ x = 8, So, consequent = 8x = 64.

Hence, option C is correct.

SmartKeeda
The Question Bank

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