BLOGS

Ratio and Proportion Questions for CLAT 2025

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Ratio and Proportion Questions for CLAT 2025

1. A car travels 240 miles in 4 hours. What is its average speed in miles per hour (mph)?

A. 60 B. 40 C. 50 D. 70

2. Three friends, A, B, and C, decide to share a sum of money. A gets 2/5 of the money, B gets 1/4 of the money, and C gets the rest. If C receives $300 less than A, and the total sum of money they share is $4,000, how much does each friend receive?

A. 1000 B. 1100 C. 1200 D. 1300

3. A mixture contains sugar solution and colored water in the ratio of 4 : 3. If 10 liters of colored water is added to the mixture, the ratio becomes 4: 5. Find the initial quantity of sugar solution in the given mixture.

A. 10 B. 20 C. 30 D. 40

4. A invested Rs. 70,000 in a business. After a few months, B joined him with Rs. 60,000. At the end of the year, the total profit was divided between them in the ratio of 2: 1. After how many months did B join?

A. 5 B. 10 C. 15 D. 20

5. 5 notebooks cost as much as 12 pens, 7 pens as much as 2 geometry, 3 geometry as much as 2 bottles. If the cost of 5 bottles is Rs 875, then find the cost of a notebook.

A. 80 B. 85 C. 90 D. 95

6. What number must be subtracted from the numerator and denominator 43/37 that it becomes 3 : 2 ?

A. 30 B. 25 C. 35 D. 20

7. The ratio of the ages of a father and his son is 5:2. If the father is 40 years older than the son, what are their ages?

A. 66 B. 76 C. 86 D. 56

8. In a mixture of milk and water, the ratio of milk to water is 5:2. If 8 liters of water are added to the mixture, the ratio becomes 5:3. How many liters of milk were in the original mixture?

A. 10 B. 20 C. 30 D. 40

9. The ages of A, B, and C are in the ratio 5:7:9, and the sum of their ages is 63 years. How old is C?

A. 25 B. 26 C. 27 D. 28

10. Two numbers A and B are such that the sum of 5% of A and 4% of B is two-third of the sum of 6% of A and 8% of B. Find the ratio of A : B is-

A. 4:3 B. 3:4 C. 2:4 D. 4:2

ANSWERS

1. Average Speed = Total Distance / Total Time

Average Speed = 240 miles / 4 hours

Average Speed = 60 mph

2. A's share = (2/5) * $4,000 = $1,600

B's share = (1/4) * $4,000 = $1,000

Now, we need to find C's share, knowing that C gets $300 less than A.

C's share = A's share – $300 = $1,600 – $300 = $1,300

So, C's share is $1,300.

To verify: A's share ($1,600) + B's share ($1,000) + C's share ($1,300) = Total ($4,000)

3. The initial ratio is 4 : 3.

Let ‘k’ be the common ratio.

=> Initial quantity of sugar solution = 4 k

=> Initial quantity of colored water = 3 k

=> Final quantity of sugar solution = 4 k

=> Final quantity of colored water = 3 k + 10

Final ratio = 4 k : 3 k + 10 = 4 : 5

=> k = 5

Therefore, the initial quantity of sugar solution in the given mixture = 4 k =***20 liters***

4. Let A work alone for ‘n’ months.

=> A’s input = 70,000 x 12

=> B’s input = 60,000 x (12 – n)

So, (70,000 x 12) / [60,000 x (12 – n)] = 2 / 1

=> (7 x 12) / [6 x (12 – n)] = 2 / 1

=> 12 – n = 7

=> n = 5

Therefore, B joined after 5 months.

5. 5 bottles = 875

2 bottles = 875 * 2/5 = 3 geometry

2 geometry cost= 875 * 2/5 * 2/3 = 7 pens cost

12 pens cost = 875 * 2/5 * 2/3 * 12/7 = 5 notebook

1 notebook= 875 * 2/5 * 2/3 * 12/7 * 1/5 = **Rs 80**

6. Let x be the number subtracted from the fraction.

(43 – x) / (37 – x) = 3/2

86 – 2x = 111 – 3x

x = **25**

7. Let the son’s age be “2x” years. Then, the father’s age is “5x” years.

According to the given information, the father is 40 years older than the son, so we can write the equation:

5x – 2x = 40

3x = 40

To find the value of “x,” divide both sides by 3:

x = 40 / 3 x = 13.33 (rounded to two decimal places)

So, the son’s age is approximately 13.33 years,

and the father’s age is: 5x ≈ 5 * 13.33 ≈ **66.67 years**

8. Milk = 5x liters Water = 2x liters

Now, when 8 liters of water are added, the ratio becomes 5:3. So, we have:

Milk = 5x liters Water = (2x + 8) liters

According to the new ratio, we can write:

5x / (2x + 8) = 5 / 3

=3 * 5x = 5 * (2x + 8)

=15x = 10x + 40

=5x = 40 = x = 8

Milk = 5x = 5 * 8 = **40 litres.**

9. Let the ages of A, B, and C be 5x, 7x, and 9x, respectively, where x is a positive integer representing the common ratio.

According to the problem, the sum of their ages is 63 years: 5x + 7x + 9x = 63

21x = 63

x = 63 / 21

x = 3

Now that we know the value of x, we can find the age of C:

C’s age = 9x C’s age = 9 * 3

C’s age = 27 years

10. From the equation, we get

5% of A + 4% of B = 2/3 (6% of A + 8% of B)

⇒ 15% of A + 12% of B = 12% of A + 16% of B

⇒ [15 – 12] % of A = [16 – 12] % of B

⇒ 3 % of A = 4% of B

Therefore, **A : B = 4 : 3.**

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