Pro:- c/laahi cabdi barre

Answers

1. Express the ratio 12:16 in its simplest form.

GCD of 12 and 16 is 4.

12 ÷ 4 = 3, 16 ÷ 4 = 4

Answer: 3:4

2. Divide $120 in the ratio 2:3.

Total parts = 2 + 3 = 5

One part = $120 ÷ 5 = $24

2 parts = 2 × $24 = $48

3 parts = 3 × $24 = $72

Answer: $48 and $72

3. The ratio of cats to dogs is 4:7. If there are 28 dogs, how many cats are there?

7 parts = 28 dogs ? 1 part = 28 ÷ 7 = 4

Cats = 4 × 4 = 16 cats

4. If a person earns $240 for working 8 hours, what is the rate of pay per hour?

$240 ÷ 8 hours = $30/hour

5. Are the ratios 6:9 and 8:12 proportional?

6:9 simplifies to 2:3

8:12 simplifies to 2:3

Answer: Yes, they are proportional

6. If 3 shirts cost $45, how much would 5 shirts cost at the same rate?

One shirt = $45 ÷ 3 = $15

5 shirts = 5 × $15 = $75

7. If 5 pens cost $10, how much do 12 pens cost?

One pen = $10 ÷ 5 = $2

12 pens = 12 × $2 = $24

8. A class has 18 boys and 12 girls. What is the ratio of boys to the total number of students?

Total students = 18 + 12 = 30

Ratio = 18:30 = 3:5

Answer: 3:5

9. Find 25% of 480.

25% = 25 ÷ 100 = 0.25

0.25 × 480 = 120

10. A jacket is sold for $150 after a 20% discount. What was the original price?

Selling price = 80% of original

0.8 × original price = $150

Original price = $150 ÷ 0.8 = $187.50

11. A salesperson earns a 5% commission on sales. If they sell goods worth $2,000, how much commission do they earn?

5% of $2000 = (5 ÷ 100) × 2000 = $100

12. If 60% of a number is 180, what is the original number?

0.6 × number = 180

Number = 180 ÷ 0.6 = 300

13. Find the simple interest on $1,200 at a rate of 5% per annum for 3 years.

Simple Interest = (P × R × T) / 100

= (1200 × 5 × 3) ÷ 100 = $180

14. A sum of $2,000 is invested at 10% per annum for 3 years compounded annually. Find the total amount.

A = P(1 + r)^t

=2000 × (1.10)^3 = 2000 × 1.331 = $2662

15. A loan of $2,000 is given for 2 years at a rate of 6% per annum. What is the total amount to be repaid at the end of the period?

Simple Interest = (2000 × 6 × 2) ÷ 100 = $240

Total amount = 2000 + 240 = $2240