Express the ratio 12:16 in its simplest form

The GCD of 12 and 16, which is 4.
4: 12 ÷ 4 = 3, 16 ÷ 4 = 4.
Answer: 3:4

Divide $120 in the ratio 2:3

Adding the ratio parts: 2 + 3 = 5 parts.
Divide ding $120 by 5: $120 ÷ 5 = $24 per part.
Multiplying each part: 2 × $24 = $48, 3 × $24 = $72.
Answer: $48 and $72

Ratio of cats to dogs is 4:7; dogs = 28. How many cats?

7 parts represent 28 dogs, so 1 part = 28 ÷ 7 = 4.
Cats = 4 parts = 4 × 4 = 16.
Answer: 16 cats

If a person earns $240 for 8 hours, rate per hour =?

Divide total earnings by hours: $240 ÷ 8 = $30.
Answer: $30/hour

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

Simplifying 6:9 ? 2:3 and 8:12 ? 2:3.
Since both simplify to 2:3, they are proportional.
Answer: Yes

If 3 shirts cost $45, 5 shirts cost =?

Find cost per shirt: $45 ÷ 3 = $15.
Multiply: 5 × $15 = $75.
Answer: $75

If 5 pens cost $10, 12 pens cost =?

Cost per pen: $10 ÷ 5 = $2.
Multiply: 12 × $2 = $24.
Answer: $24

Class: 18 boys, 12 girls. Ratio of boys to total =?

Total students = 18 + 12 = 30.
Ratio = 18:30 ? Simplify by 6: 2:5.

Answer: 3:5

Find 25% of 480

Convert to decimal: 25% = 0.25.
Multiply: 0.25 × 480 = 120.
Answer: 120

Jacket sold for $150 after 20% discount. Original price =?

Let original price be x. After 20% discount, price = 80% of x = 0.8x.
0.8x = 150 ? x = 150 ÷ 0.8 = 187.50.
Answer: $187.50

5% commission on $2,000 sales =?

Convert to decimal: 5% = 0.05.
Multiply: 0.05 × 2000 = $100.
Answer: $100

60% of a number is 180. Find original number

Let the number be x. 60% = 0.6x = 180.
x = 180 ÷ 0.6 = 300.
Answer: 300

Simple interest on $1,200 at 5% for 3 years =?

SI = P × R × T ÷ 100.
SI = 1200 × 5 × 3 ÷ 100 = 180.
Answer: $180

Compound interest: $2,000 at 10% for 3 years

By Using formula A = P(1 + r/100)^t.
A = 2000(1 + 0.1)^3 = 2000 × 1.331 = 2662.
Answer: $2,662

Loan $2,000 for 2 years at 6% simple interest

SI = P × R × T ÷ 100 = 2000 × 6 × 2 ÷ 100 = 240.
Total = Principal + SI = 2000 + 240 = 2240.
Answer: $2,240