

ALPHA UNIVERSITY BORAMA

Assignment of math's methods

Name: Abdimalik Said Mire. Faculty: account and finance ID: 798

The assignment

Individual assailment the assignment 30 marks

Submission date 05-05-2025

Date solution and sent 04/5/2025 SUN

Express the ratio 12:16 in its simplest

form?

Simplify 12:16

= Simplest form: 3:4

Divide \$120 in the ratio 2:

3?

Divide \$120 in the ratio 2:3

Total parts = 2 + 3 = 5

Each part = $120 \div 5 = 24

So, 2 parts = $2 \times 24 = 48

3 parts = $3 \times 24 = 72

The ratio of cats to dogs in a pet shop is 4:7. If there are 28 dogs, how many cats are there?

Cats to dogs = 4:7, Dogs = 28

1 part =
$$28 \div 7 = 4$$

$$Cats = 4 \times 4 = 16$$

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

Rate = $240 \div 8 = \$30/hour$

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

Simplify: 6:9 = 2:3, 8:12 = 2:3

Yes, they are proportional.

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

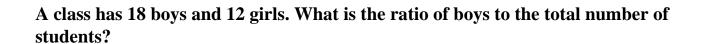
3 shirts = \$45, 1 shirt =
$$45 \div 3 = $15$$

$$5 \text{ shirts} = 5 \times 15 = $75$$

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

5 pens =
$$\$10$$
, 1 pen = $10 \div 5 = \$2$

12 pens =
$$12 \times 2 = $24$$



Boys to total = 18:30 = 3:5

Find 25% of 480.

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

\$150 after 20% discount

Let original = x

80% of x = 150? 0.8x = 150

 $X = 150 \div 0.8 = \$187.50$

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

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

Let number = x

$$0.6x = 180$$
? $x = 180 \div 0.6 = 300$

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

$$= 1200 \times 5 \times 3 \div 100 = $180$$

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

$$A = 2000(1 + 10/100)^3 = 2000(1.1)^3$$

= $2000 \times 1.331 = 2662

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 = $2000 \times 6 \times 2 \div 100 = 240$

Total repayment = 2000 + 240 = \$2240

