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 ÷ 5 = $24

So, 2 parts = 2 × 24 = $48

3 parts = 3 × 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 ÷ 7 = 4

Cats = 4 × 4 = 16

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

Rate = 240 ÷ 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 ÷ 3 = $15

5 shirts = 5 × 15 = $75

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

5 pens = $10, 1 pen = 10 ÷ 5 = $2

12 pens = 12 × 2 = $24

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

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 ÷ 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 ÷ 0.6 = 300

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

= 1200 × 5 × 3 ÷ 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 × 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 × 6 × 2 ÷ 100 = 240

Total repayment = 2000 + 240 = $2240

End