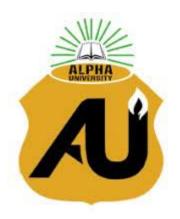


period?



Name: ...... faculty...... ID......

### **ALPHA UNIVERSITY BORAMA**

# Assignment of math's methods

The assignment
Individual assailment the assignment 30 marks
Submission date 05-05-2025
Express the ratio 12:16 in its simplest form.
Divide \$120 in the ratio 2:3.
The ratio of cats to dogs in a pet shop is 4:7. If there are 28 dogs, how many cats are there?
If a person earns \$240 for working 8 hours, what is the rate of pay per hour?
Are the ratios 6:9 and 8:12 proportional?
If 3 shirts cost \$45, how much would 5 shirts cost at the same rate?
If 5 pens cost \$10, how much do 12 pens cost?
A class has 18 boys and 12 girls. What is the ratio of boys to the total number of students?
Find 25% of 480.
A jacket is sold for \$150 after a 20% discount. What was the original price?
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?
Find the simple interest on \$1,200 at a rate of 5% per annum for 3 years.

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

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

# **Solution:**

12:16

3:4

### Total ratio=2+3=5

The ratio of one part  $=$120 \div 5 = $24$ 

The ratio of  $3 = 24 \times 3 = $72$ 

The ratio of  $2 = 24 \times 2 = \$48$ .

**3.**Given: number of dogs=28, ratio of cats to the dogs=4:7

Let x number of cats, x/28=4/7

7x=112, x=16

Therefore the number of cats are 16 in pet shop.

The person earn \$30 per hour.

By dividing  $$240 \div 8 = $30$ .

**5.** to known if the ratio is proportional

we compare the two ratio then,

6:9,8:12

2:3, 2:3

Therefore if the simplified ratio equals ,the ratio are proportional .

**6.** let X for shirt.

If 3x = \$45

X = \$15

So  $5x=5\times15=$75$ 

Therefore: 5shirts=\$75

**8.** Given : Boys=18

Grils=12

Total = 30

The ratio of boys to the total number = 18:30

Simplify: 3:5

- **9.** 25%0f 480= 120
- 10. 20% discount means Jacket sold out 80%, so 80%x=150

X = \$187.5

And the original price is \$187.5.

11. given that ,Commission rate =5%, Amount of sales = \$2000

Commission = rate of commission × Amount of sales

Commission = 5% × \$2000 = \$100.

Simple

intrest

=PRT,



Principle (P)=\$2000, Rate(R)=10%

# Given:

P= \$2000, t=2

years,

r=6%, Total amount of

repaid?