

ALPHA UNIVERSITY BORAMA
Assignment of Maths Methods
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The Assignment

Individual Assignment The assignment: 30 marks Submission Date: 05-05-2025

1. Express the ratio 12:16 in its simplest form.
= 3:4 (Divide both numbers by 4)
2. Divide \$120 in the ratio 2:3.
= Total parts = 5
= \$120 ÷ 5 = \$24
= \$48 and \$72
3. The ratio of cats to dogs in a pet shop is 4:7. If there are 28 dogs, how many cats are there?
= 16 cats
4. If a person earns \$240 for working 8 hours, what is the rate of pay per hour?
= \$30/hour
5. Are the ratios 6:9 and 8:12 proportional?
= Yes, both equal $\frac{2}{3}$
6. If 3 shirts cost \$45, how much would 5 shirts cost at the same rate?
= \$75
7. If 5 pens cost \$10, how much do 12 pens cost?
= \$24
8. A class has 18 boys and 12 girls. What is the ratio of boys to the total number of students?

= 3:5

9. Find 25% of 480.

= 120

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

= \$187.50

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

= \$100

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

= 300

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

= \$180

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

= \$2,662

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?