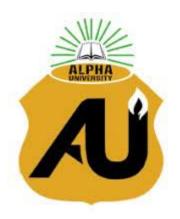


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Name: faculty...... ID......

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

Answers:

Answers:

- 1. 12:16 simplifies to 3:4.
- 2. \$120 divided in the ratio 2:3 = \$48 and \$72.
- 3. If there are 28 dogs and the ratio of cats to dogs is 4:7, then there are 16 cats.
- 4. $$240 \div 8 \text{ hours} = 30 per hour.
- 5. 6:9 = 2:3 and 8:12 = 2:3, so yes, they are proportional.
- 6. If 3 shirts cost \$45, then 1 shirt costs \$15. So, 5 shirts cost \$75.
- 7. If 5 pens cost \$10, then 1 pen costs \$2. So, 12 pens cost \$24.
- 8. Total students = 18 + 12 = 30. Ratio of boys to total = 18:30 = 3:5.
- 9. 25% of $480 = 0.25 \times 480 = 120$.
- 10. Let the original price be x. After 20% discount: x 0.2x = 150 ? 0.8x = 150 ? x = \$187.50.
- 11. 5% of $\$2,000 = 0.05 \times 2,000 = \100 .
- 12. Let the number be x. 0.6x = 180 ? x = 180 / 0.6 = 300.
- 13. Simple Interest = $(1200 \times 5 \times 3)/100 = 180 .
- 14. Compound Interest formula: $A = P(1 + r/100)^{t}$? $A = 2000(1 + 0.10)^{3} = $2,662$.
- 15. Simple Interest = $(2000 \times 6 \times 2)/100 = \240 ? Total = 2000 + 240 = \$2,240.