**ALPHA UNIVERSITY BORAMA**

**Assignment of math’s methods**

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**The Assignment**  
**Individual Assignment – Total Marks: 30**  
**Submission Date:** 05-05-2025

1. **Express the ratio 12:16 in its simplest form.?**  
   ✅ **Answer:** 3:4
2. **Divide $120 in the ratio 2:3.**?  
   ✅ **Answer:** $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?**  
   ✅ **Answer:** 16 cats
4. **If a person earns $240 for working 8 hours, what is the rate of pay per hour?**  
   ✅ **Answer:** $30/hour
5. **Are the ratios 6:9 and 8:12 proportional?**  
   ✅ **Answer:** Yes
6. **If 3 shirts cost $45, how much would 5 shirts cost at the same rate?**  
   ✅ **Answer:** $75
7. **If 5 pens cost $10, how much do 12 pens cost?**  
   ✅ **Answer:** $24
8. **A class has 18 boys and 12 girls. What is the ratio of boys to the total number of** **students?**  
   ✅ **Answer:** 3:5
9. **Find 25% of 480.**  
   ✅ **Answer:** 120
10. **A jacket is sold for $150 after a 20% discount. What was the original price?**  
    ✅ **Answer:** $187.50
11. **A salesperson earns a 5% commission on sales. If they sell goods worth $2,000, how much commission do they earn?**  
    ✅ **Answer:** $100
12. **If 60% of a number is 180, what is the original number?**  
    ✅ **Answer:** 300
13. **Find the simple interest on $1,200 at a rate of 5% per annum for 3 years.**  
    ✅ **Answer:** $180
14. **A sum of $2,000 is invested at 10% per annum for 3 years compounded annually. Find** the total amount.  
    ✅ **Answer:** $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 berepaid at the end of the period**?  
    ✅ **Answer:** $2,240