**ALPHA UNIVERSITY BORAMA**

**Assignment of math’s methods**

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**The assignment**

**Individual assignment the assignment 30 marks**

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1. Express the ratio **12:16** in its simplest form.
2. Divide **$120** in the ratio **2:3.**
3. The ratio of cats to dogs in a pet shop is **4:7.** If there are 28 dogs, how many cats are there?
4. If a person earns **$240** for working **8 hours**, what is the rate of pay per hour?
5. Are the ratios 6:9 and 8:12 proportional?
6. If **3 shirts** cost **$45,** how much would **5 shirts** cost at the same rate?
7. If **5 pens** cost **$10**, how much do **12 pens** cost?
8. A class has **18 boys** and **12 girls**. What is the ratio of boys to the total number of students?
9. Find **25% of 480.**
10. A jacket is sold for **$150** after a **20%** discount. What was the original price?
11. A salesperson earns a **5%** commission on sales. If they sell goods worth **$2,000**, how much commission do they earn?
12. If **60%** of a number is **180**, what is the original number?
13. Find the simple interest on **$1,200** at a rate of **5%** per annum for **3 years.**

* Simple interest **( SI)** = principal **(p)** × interest rate **( r)** × time in years **( t)**

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

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* The total amount after 3 years is $2,662

1. 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?

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