**ALPHA UNIVERSITY BORAMA**  
**BUSINESS Methods Assignment**

**Name**: **ABDUWAHAB ABDIKADIR ALI**

**Faculty**: ACCOUNTING AND FINANCE  
**ID**: …572  
**Submission Date**: 02-05-2025

**1. Simplify the ratio 12:16**

To simplify, divide both terms by their greatest common divisor (4):  
12 ÷ 4 = 3, and 16 ÷ 4 = 4.  
**Answer**: 3:4

**2. Divide $120 in the ratio 2:3**

Sum of the parts = 2 + 3 = 5  
Each part = $120 ÷ 5 = $24  
First share: 2 × $24 = $48  
Second share: 3 × $24 = $72  
**Answer**: $48 and $72

**3. The ratio of cats to dogs is 4:7. If there are 28 dogs, how many cats are there?**

Take the number of cats be x.  
4/7 = x/28 ⇒ x = (4 × 28) ÷ 7 = 16  
**Answer**: 16 cats

**4. If a person earns $240 for 8 hours, what is the rate per hour?**

Rate = $240 ÷ 8 = $30/hour  
**Answer**: $30 per hour

**5. Are the ratios 6:9 and 8:12 proportional?**

6:9 = 2:3, 8:12 = 2:3  
**Answer**: Yes, they are proportional

**6. If 3 shirts cost $45, how much do 5 shirts cost?**

Cost per shirt = $45 ÷ 3 = $15  
Cost of 5 shirts = 5 × $15 = $75  
**Answer**: $75

**7. If 5 pens cost $10, what do 12 pens cost?**

Cost per pen = $10 ÷ 5 = $2  
Cost of 12 pens = 12 × $2 = $24  
**Answer**: $24

**8. A class has 18 boys and 12 girls. What is the ratio of boys to total students?**

Total students = 18 + 12 = 30  
Ratio = 18:30 = 3:5  
**Answer**: 3:5

**9. Find 25% of 480**

25% of 480 = (25/100) × 480 = 120  
**Answer**: 120

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

Let original price = x  
80% of x = $150 ⇒ x = 150 ÷ 0.8 = $187.50  
**Answer**: $187.50

**11. A salesperson earns 5% commission on $2,000 sales.**

Commission = 5% of $2,000 = (5/100) × 2000 = $100  
**Answer**: $100

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

Let the number be x.  
60% of x = 180 ⇒ (60/100) × x = 180 ⇒ x = 180 ÷ 0.6 = 300  
**Answer**: 300

**13. Find simple interest on $1,200 at 5% per annum for 3 years**

SI = (P × R × T)/100 = (1200 × 5 × 3)/100 = $180  
**Answer**: $180

**14. Compound interest on $2,000 at 10% for 3 years**

Amount = 2000 × (1 + 0.10)^3 = 2000 × 1.331 = $2,662  
**Answer**: $2,662

**15. Total repayment on a $2,000 loan at 6% per annum for 2 years (Simple Interest)**

SI = (2000 × 6 × 2)/100 = $240  
Total = 2000 + 240 = $2,240  
**Answer**: $2,240

Abduwahab Abdukadir Ali GOOD LUCK