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The assignment

Individual assailment the assignment 30 marks

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Math Exercises

1. Simplify the ratio 12:16
? Find the GCD of 12 and 16 which is 4
? Divide both by 4: 12 ÷ 4 = 3, 16 ÷ 4 = 4
? Simplest form is 3:4

2. Divide $120 in the ratio 2:3
? Total parts = 2 + 3 = 5
? Each part = 120 ÷ 5 = $24
? 2 parts = 2 × 24 = $48, 3 parts = 3 × 24 = $72

3. Cats to dogs is 4:7, and there are 28 dogs
? 7 parts = 28 ? 1 part = 28 ÷ 7 = 4
? 4 parts = 4 × 4 = 16 cats

4. Earn $240 in 8 hours
? Rate = Total earnings ÷ Hours = 240 ÷ 8 = $30/hour

5. Are 6:9 and 8:12 proportional?
? 6:9 = 2:3 (divide both by 3)
? 8:12 = 2:3 (divide both by 4)
? Ratios are equal ? Proportional

6. Cost of 5 shirts if 3 shirts cost $45
? Cost per shirt = 45 ÷ 3 = $15
? 5 shirts = 5 × 15 = $75

7. Cost of 12 pens if 5 pens cost $10
? Cost per pen = 10 ÷ 5 = $2
? 12 pens = 12 × 2 = $24

8. Ratio of boys to total students (18 boys, 12 girls)
? Total students = 18 + 12 = 30
? Ratio = 18:30 = 3:5

9. 25% of 480
? (25 ÷ 100) × 480 = 0.25 × 480 = 120

10. Jacket sold for $150 after 20% discount
? Let original price = x
? x - 20% of x = 150 ? 0.8x = 150
? x = 150 ÷ 0.8 = $187.50

11. 5% commission on $2000
? (5 ÷ 100) × 2000 = 0.05 × 2000 = $100

12. 60% of a number is 180
? Let the number be x: 0.6x = 180
? x = 180 ÷ 0.6 = 300

13. Simple Interest on $1200 at 5% for 3 years
? SI = (P × R × T) ÷ 100 = (1200 × 5 × 3) ÷ 100 = $180

14. Compound Interest on $2000 at 10% for 3 years
? A = P(1 + r/100)^t = 2000(1 + 0.10)^3
? A = 2000 × (1.1)^3 = 2000 × 1.331 = $2662

15. Total repayment on $2000 at 6% for 2 years (Simple Interest)
? SI = (2000 × 6 × 2) ÷ 100 = $240
? Total = Principal + Interest = 2000 + 240 = $2240