ALPHA UNIVERSITY

NAME:NIMCO XUSEEN DAAUD

ID:802

Faculty: project management

Class:online

Assignment of math's methods

1. Express the ratio 12:16 in its simplest form.

Answer: 12:16 = 3:4

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

Total parts = 2 + 3 = 5

$120 ÷ 5 = $24 per part

So, 2 parts = $48 and 3 parts **= *$72***

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

4:7 = cats:dogs ? 28 dogs = 7 parts

1 part = 28 ÷ 7 = 4

Cats = 4 × 4 = 16

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

$240 ÷ 8 **= $30/hour**

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

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

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

$45 ÷ 3 = $15/shirt ? 5 shirts = 5 × $15 = $75

7. If 5 pens cost $10, how much do 12 pens cost?

$10 ÷ 5 = $2/pen ? 12 pens = 12 × $2 = $24

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

Total = 18 + 12 = 30

Ratio = 18:30 **= 3:5**

9. Find 25% of 480.

25% × 480 = 0.25 × 480 **= $120**

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

Let original = x.

x - 0.2x = 150 ? 0.8x = 150 ? x = 150 ÷ 0.8 = **$187.50**

11. A salesperson earns a 5% commission on $2,000. How much is the commission?

5% × 2000 = 0.05 × 2000 **= $100**

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

60% = 0.6

0.6x = 180 ? x = 180 ÷ 0.6 = $**300**

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

SI = P × R × T / 100 = 1200 × 5 × 3 ÷ 100 = $**180**

14. A sum of $2,000 invested at 10% per annum for 3 years compounded annually.

Compound Interest = A = P(1 + r)^t

= 2000(1 + 0.10)^3 = 2000 × 1.331 **= $2662**

15. A loan of $2,000 for 2 years at 6% per annum. Total to be repaid?

SI = 2000 × 6 × 2 ÷ 100 = $240

Total = 2000 + 240 = $**2,240**