**ALPHA UNIVERSITY BORAMA**

**Assignment of math’s methods**

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

**12÷4=3: 16÷4=4= 3:4**

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

**2+3=5**

**=$24**

First person: 2×24= 48

Second person: 3×24=72

1. The ratio of cats to dogs in a pet shop is 4:7. If there are 28 dogs, how many cats are there?

**=4, 4×4= 16 cats**

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

**= 30 per hour**

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

**, yes**

1. If 3 shirts cost $45, how much would 5 shirts cost at the same rate?

**5 shirts= 5×15= $75**

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

**12 pens= 2×12= 24**

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

**18+12= 30**

**= 3:5**

1. Find 25% of 480.

**= 120**

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

**= the original price of the jacket was 187.50**

1. A salesperson earns a 5% commission on sales. If they sell goods worth $2,000, how much commission do they earn?

**commission is = 100**

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

**300**

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

**Simple intrest(s1)= P×R×T**

**S1= 1,200×0.05×3= 180**

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

**A= 2,000(1.331)**

**A= 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?

**S1= 2,000×0.06×2= $240**

**Total Amount= 2,000+240= $2240**