??ALPHA UNIVERSITY BORAMA
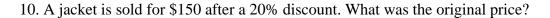
Assignment of math's methods

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The assignment

Individual assailment   the assignment 30 marks

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

Answer:

12:16=2:3

  So, the simplified ratio is=**2:3**

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

    Answer:

2+3=5

Therefore, when $120 is divided in the ratio 2:3, the two parts are =**$48** and **$72**

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

    Answer:

There fore, there are **16** cat in the pet shop.

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

Answer:

Given:

Total earnings = $240

Total hours worked = 8 hours

Rate of pay per hour =$240÷8=$30.

Therefore, the rate of pay per hour is =**$30**

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

Answer:

Let's simplify the first ratio, 6:9. The greatest common divisor (GCD) of 6 and 9 is 3.

Divide both parts of the ratio by 3:

So, the simplified form of 6:9 is 2:3.

Now, let's simplify the second ratio, 8:12. The greatest common divisor (GCD) of 8 and 12 is 4.

Divide both parts of the ratio by 4:

So, the simplified form of 8:12 is also 2:3.

Since both ratios simplify to the same ratio (2:3), they are proportional.

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

Answer:

So, the cost of one shirt is $15.

Now, we need to find the cost of 5 shirts at the same rate. We can do this by multiplying the cost of one shirt by 5:

Cost of 5 shirts= 5×cost of one shirt

Cost of 5 shirts= 5×15=75

Cost of 5 shirts=**$75.**

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

Answer:

So, one pen costs $2.

Now, to find the cost of 12 pens, we multiply the cost of one pen by 12:

Cost of 12 pens = 12×Cost of one pen

=12×2=24

Cost of 12pens=**$24**

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

Answer:

To find the ratio of boys to the total number of students, we first need to determine the total number of students in the class.

Number of boys = 18

Number of girls = 12

Total number of students = Number of boys + Number of girls

Total number of students = 18 + 12

Total number of students = **30**

Now, we can find the ratio of boys to the total number of students:

Ratio of boys to total students = Number of boys : Total number of students

Ratio of boys to total students = **18 : 30**

To express this ratio in its simplest form,

So, the simplified ratio of boys to the total number of students is 3:5.

9. Find 25% of 480.

Answer:

25/100×480

=120.

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

Answer:

The original price of the jacket was =**187.5**

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

Answer:

Commission=0.05×2000=**100**

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

Answer:

Original number =180/0.60=**300**

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

Answer:

I=p × r × t

=1200×0.05×3=**180**

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

Answer:

Therefore, the total amount after 3 years . Total amount at the end of Year 3 = $2420 + $242 = **$2662.**

15. 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?

Answer:

Here's the formula for simple interest:

$I = P \times R \times T$

$= 2000 \times 0.06 \times 2$ $= \underline{\textbf{\$240}}$

So, the total interest to be paid over 2 years is **$240**