

MAIN IDEA

- Write an equation to describe a proportional situation.

EXAMPLE Write an Equation for a Function

- Write an equation to represent the function displayed in the table.

Input, x	1	2	3	4	5
Output, y	9	18	27	36	45

Examine how the value of each input and output changes. Each output y is equal to the input x . So, the equation that represents the function is .

Check Your Progress

Write an equation to represent the function displayed in the table.

Input, x	1	2	3	4	5
Output, y	11	22	33	44	55

EXAMPLES

BOOKS Javier sells handmade notebooks. He charges \$25 for each book.

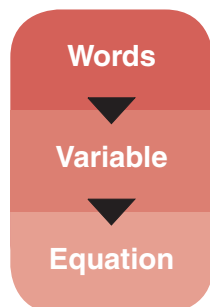
- Make a table to show the relationship between the number of books sold b and the total amount Javier earns t .

The total earned (output) is equal to the number of books sold (input).

Books Sold, b	Multiply by 25	Total Earned (\$), t
1	1×25	<input type="text"/>
2	2×25	<input type="text"/>
3	3×25	<input type="text"/>
4	4×25	<input type="text"/>

- 3** Write an equation to find the total amount earned t for selling b books.

Study the table from Example 2.



Total earned equals \$25 times the number of books sold.

Let represent the total earned and represent the number of books sold.

$$t = \text{$$

- 4** How much will Javier earn if he sells 7 books?

$$t = \text{$$

Write the equation.

$$t = \text{ or$$

Replace b with . Multiply.

Javier will earn for selling 7 notebooks.

Check Your Progress

BABYSITTING Jenna babysits on the weekends. She charges \$8 for each hour.

- a. Make a table to show the relationship between the number of hours Jenna babysits h and the total amount she earns t .

- b. Write an equation to find the total amount earned t for h hours of babysitting.

--

- c. How much will Jenna earn if she babysits for 14 hours?

--

EXAMPLE

5 DOG GROOMING The table shows the amount that a kennel charges for grooming a dog. Write a sentence and an equation to describe the data. Then find the total cost of grooming 11 dogs.

Dogs Groomed, d	Total Cost (\$), t
1	12
2	24
3	36
4	48

The cost of grooming is per dog. The total cost t is \$12 times the number of dogs d . Therefore, $t =$. Use this equation to find the total cost t of grooming 11 dogs.

$t =$ Write the equation.

$t =$ or Replace d with . Multiply.

The total cost of grooming 11 dogs is .

Check Your Progress

CARS The table shows the amount that a rental car company charges to rent a car per day. Write a sentence and an equation to describe the data. Then find the total cost of renting a car for 9 days.

Days, d	Total Cost (\$), t
1	32
2	64
3	96
4	128

HOMEWORK ASSIGNMENT

Page(s):

Exercises: