



Math Virtual Learning

6th Grade Math

Writing Equations in Two Variables

April 17, 2020



6th Grade Math
Lesson: April 17th, 2020

Learning Target:
Students will write equations in two variables.

START HERE:

<https://bit.ly/2RoAUfD>

Warm Up Activity

Write an algebraic expression to match each written form.

1. The sum of seven and x .
2. A number minus 18.
3. A number decreased by 16.
4. Six more than twice a number.
5. Eight divided by twice a number.

Addition (+)	Subtraction (-)
total	difference
in all	less than
total	how many more
add	minus
altogether	take away
more	remain
and	left

Multiplication (x)	Division (\div)
in all	divided by
times	equal groups
groups of	shared equally
lots of	groups of
multiply	each
each	divided into
product	equal parts

Warm Up Activity - Answers

Write an algebraic expression to match each written form.

1. The sum of seven and x. $7+x$
2. A number minus 18. $n - 18$
3. A number decreased by 16. $n - 16$
4. Six more than twice a number. $2n + 6$
5. Eight divided by twice a number. $8 \div 2n$

Instruction

Independent Variable

Influences
CHANGE
in the

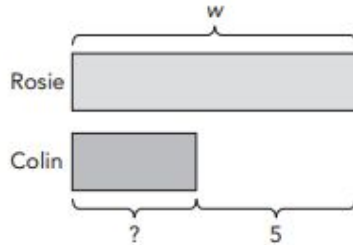
Dependent Variable

<https://youtu.be/UeeafcAXKC0>

Write a linear equation for each of the following. Then state the independent and dependent variables for each equation.

Example

Rosie has w books. Colin has 5 fewer books than Rosie.



a) Write an expression for the number of books that Colin has in terms of w .

Colin's has $(w - 5)$ books.

b) If Colin has p books, express p in terms of w .

$$p = (w - 5)$$

$p = w - 5$ is called a
linear equation.

c) State the independent and dependent variables.

Independent variable: w , Dependent variable: p

Practice #1

Joseph finished a test in g minutes. Catherine finished the same test in 8 minutes less than Joseph.

- a. Write an expression for the number of minutes it took Catherine to finish the test in terms of g .
- b. If Catherine finished the test in v minutes, express v in terms of g .
- c. State the independent and dependent variables.

Practice #1 - Answers

Joseph finished a test in g minutes. Catherine finished the same test in 8 minutes less than Joseph.

- a. Write an expression for the number of minutes it took Catherine to finish the test in terms of g .

$$g - 8$$

- b. If Catherine finished the test in v minutes, express v in terms of g .

$$v = g - 8$$

- c. State the independent and dependent variables.

$$\text{IV} = \text{Joseph } (g), \text{ DV} = \text{Catherine } (v)$$

Practice #2

Write the algebraic equation for this word problem.

Summer scored x points in a hockey game. Jordan scored 2 points when he played in the same game. Their combined score was y points.

Practice #2 - Answers

Write the algebraic equation for this word problem.

Summer scored x points in a hockey game. Jordan scored 2 points when he played in the same game. Their combined score was y points.

$$y = x + 2$$

Practice #3

Match the verbal descriptions with the correct algebraic equation.

The width of a bobsled is 2 meters less than its length.

$$y = x + 2$$

Brendan and Michael competed in the snowboarding competition. Brendan's finishing time was 2 more seconds than Michael.

$$y = 2x$$

At a ski store, Adam bought some boxes of red goggles and some boxes of blue goggles. The number of boxes of red goggles was 2 times the number of boxes of blue goggles.

$$y = x - 2$$

Practice #3 - Answers

Match the verbal descriptions with the correct algebraic equation.

The width of a bobsled is 2 meters less than its length.

Brendan and Michael competed in the snowboarding competition. Brendan's finishing time was 2 more seconds than Michael.

At a ski store, Adam bought some boxes of red goggles and some boxes of blue goggles. The number of boxes of red goggles was 2 times the number of boxes of blue goggles.


$$y = x + 2$$

$$y = 2x$$

$$y = x - 2$$

Reflection

On a piece of paper, write your understanding of today's lesson. Use the chart to help you. Go into detail explaining where you are struggling, or where you are succeeding.

Email your teacher if you feel like you need further assistance with today's lesson!

Rate Your Understanding

0	1	2	3	4
				
I am so lost.	I don't really get it.	I'm starting to get it.	I got this.	I could teach it.

Extra Resources

Khan Academy - <https://bit.ly/3e2wa98>

<https://bit.ly/34lf157>

<https://bit.ly/2XltcqH>

<https://braingenie.ck12.org/skills/105348>