



Math Virtual Learning

6th Grade Math

Writing Algebraic Expressions

April 10, 2020



6th Grade Math
Lesson: April 10, 2020

Objective/Learning Target:
Students will write algebraic expressions.

Daily Warm Up

$$27.5 + 12 = ?$$

$$798 - 542 = ?$$

$$28 \bullet 6 = ?$$

$$245 \div 5 = ?$$

(We will now start to use a dot for multiplication, not an X)

Daily Warm Up Answers

$$27.5 + 12 = 39.5$$

$$798 - 542 = 256$$

$$28 \bullet 6 = 168$$

$$245 \div 5 = 49$$

Lesson Videos

Khan Academy video on writing expressions:






<https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-expressions-and-variables/cc-6th-writing-expressions/v/writing-expressions-with-variables-examples?modal=1>

Article from Khan about writing expressions and why:

<https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-expressions-and-variables/cc-6th-writing-expressions/a/writing-basic-algebraic-expressions?modal=1>

Lesson Reminders

As you practice writing algebraic expressions, use this page to help you with important words in math so you know which operation to use.

MATH TERMS			
Check the vocabulary to determine which operation to use in word problems			
			
addition	combine	subtraction	deduct
add	and	subtract	fewer
altogether	both	minus	remain
plus	join	how many	left over
increase	in all	difference	less
total	sum	decrease	more
together			reduce
more			take away
			
		equals	total
		is	will be
		are	gives
			
multiplication	by	equal pieces	division
multiply	factor	divide	split
product	area	quotient	parts
multiple	twice	per	equal groups
times	double	times	separate
triple	of	goes into	distribute
		out of	average
			ratio

$$n + 6$$



- a number greater than six
- the sum of six and a number
- a number plus six

$$25 - x$$



- the difference of twenty-five and x
- a number less than twenty-five
- a number subtracted from twenty-five

$$3r$$



- the product of a number and three
- a number multiplied by three
- three times a number r

$$s/12$$



- a number divided by twelve
- the quotient of s and twelve
- a number split into twelve groups

Practice

Write an algebraic expression for each phrase.

12 more than m

x times 6

25 less than a

s divided by 10

the sum of 6 and k

twice x

4 more than twice p

Practice Answers

12 more than m $12 + m$ or $m + 12$

x times 6 $6x$

25 less than a $a - 25$

s divided by 10 $s/10$

the sum of 6 and k $6 + k$ or $k + 6$

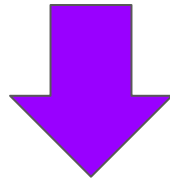
twice x $2x$

4 more than twice p $2p + 4$ or $4 + 2p$

Practice

Click on the link below to practice identifying the correct algebraic equation for each problem.

**You may need to click on the link a second time if it doesn't come up the first time.*



<https://www.mathgames.com/skill/6.104-write-variable-expressions>

Why Did the Cow Keep Jumping Over the Barrel?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Translate each phrase below into an algebraic expression and find your answer in the corresponding answer column. Write the letter of that exercise in the box that contains the number of the answer.

E 3 times a number 18 $x + 3$	S 5 times a number, increased by 8 22 $8(x + 5)$
O 3 more than a number 15 $3x - 8$	A 5 times the sum of a number and 8 4 $8(2x + 5)$
S 3 decreased by a number 19 $x - 3$	H 5 more than 8 times a number 2 $8x + 5$
R 3 less than a number 12 $3x + 8$	O 8 times the sum of a number and 5 13 $2(5x + 8)$
A one third of a number 3 $3x$	C Twice the sum of 5 times a number and 8 6 $5x + 8$
I 8 more than 3 times a number 25 $3 - x$	T 2 more than five eighths of a number 20 $5(x + 8)$
N 8 less than 3 times a number 5 $x/3$	W 8 times the sum of twice a number and 5 11 $5/8x + 2$
A 7 less than 4 times a number 1 $7 - 4x$	T 9 meters higher than altitude x 7 $x + 15$
S 7 decreased by 4 times a number 16 $2x - 9$	F 15 meters per second faster than speed x 28 $x + 9$
G 9 less than twice a number 14 $7x + 4$	P 15 degrees hotter than temperature x 26 $4x - 9$
N 9 decreased by twice a number 9 $4x - 7$	O 9 meters shorter than twice length x 23 $2x - 9$
O 9 less than half a number 8 $7x + 4x$	C 9 years older than twice age x 10 $2x + 9$
I 7 times a number, increased by 4 24 $9 - 2x$	H \$9 cheaper than 4 times price x 17 $x - 15$
R 7 times a number, increased by 4 times the number 27 $x/2 - 9$	M 9 centimeters less than three fourths of length x 21 $3/4x - 9$

Why Did the Cow Keep Jumping Over the Barrel?

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
S	H	E	W	A	S	P	R	A	C	T	I	C	I	N	G	F	O	R	A	M	O	O	N	S	H	O	T

Translate each phrase below into an algebraic expression and find your answer in the corresponding answer column. Write the letter of that exercise in the box that contains the number of the answer.

<p>E 3 times a number</p> <p>O 3 more than a number</p> <p>S 3 decreased by a number</p> <p>R 3 less than a number</p> <p>A one third of a number</p> <p>I 8 more than 3 times a number</p> <p>N 8 less than 3 times a number</p>	<p>18 $x + 3$</p> <p>15 $3x - 8$</p> <p>19 $x - 3$</p> <p>12 $3x + 8$</p> <p>3 $3x$</p> <p>25 $3 - x$</p> <p>5 $x/3$</p>
<p>A 7 less than 4 times a number</p> <p>S 7 decreased by 4 times a number</p> <p>G 9 less than twice a number</p> <p>N 9 decreased by twice a number</p> <p>O 9 less than half a number</p> <p>I 7 times a number, increased by 4</p> <p>R 7 times a number, increased by 4 times the number</p>	<p>1 $7 - 4x$</p> <p>16 $2x - 9$</p> <p>14 $7x + 4$</p> <p>9 $4x - 7$</p> <p>8 $7x + 4x$</p> <p>24 $9 - 2x$</p> <p>27 $x/2 - 9$</p>
<p>S 5 times a number, increased by 8</p> <p>A 5 times the sum of a number and 8</p> <p>H 5 more than 8 times a number</p> <p>O 8 times the sum of a number and 5</p> <p>C Twice the sum of 5 times a number and 8</p> <p>T 2 more than five eighths of a number</p> <p>W 8 times the sum of twice a number and 5</p>	<p>22 $8(x + 5)$</p> <p>4 $8(2x + 5)$</p> <p>2 $8x + 5$</p> <p>13 $2(5x + 8)$</p> <p>6 $5x + 8$</p> <p>20 $5(x + 8)$</p> <p>11 $5/8x + 2$</p>
<p>T 9 meters higher than altitude x</p> <p>F 15 meters per second faster than speed x</p> <p>P 15 degrees hotter than temperature x</p> <p>O 9 meters shorter than twice length x</p> <p>C 9 years older than twice age x</p> <p>H \$9 cheaper than 4 times price x</p> <p>M 9 centimeters less than three fourths of length x</p>	<p>7 $x + 15$</p> <p>28 $x + 9$</p> <p>26 $4x - 9$</p> <p>23 $2x - 9$</p> <p>10 $2x + 9$</p> <p>17 $x - 15$</p> <p>21 $3/4x - 9$</p>

Additional Practice:

Click on the links below to get additional practice and to check your understanding!

Online Games:

<https://www.iknowit.com/lessons/e-writing-algebraic-expressions.html>

https://www.math-play.com/Algebraic-Expressions-Millionaire/algebraic-expressions-millionaire-game_html5.html

Practice:

https://www.khanacademy.org/math/pre-algebra/pre-algebra-equations-expressions/pre-algebra-writing-expressions/e/writing_expressions_1

Summary/Reflection:

Write a reflection on today's lesson and explain at least two examples from your practice.