

Name \_\_\_\_\_

Date \_\_\_\_\_

Mr. Tallman

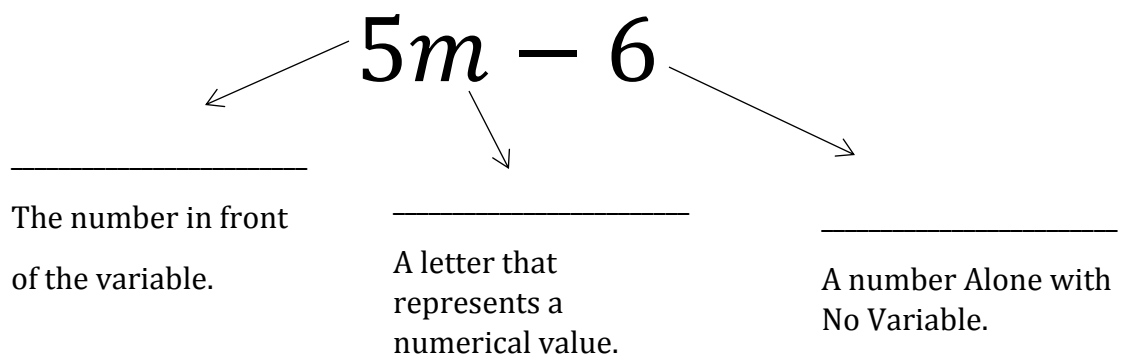
**Do Now**

**Write as many words that mean each operation below as you can think of.**

<b><u>Addition</u></b>	<b><u>Subtraction</u></b>	<b><u>Multiplication</u></b>	<b><u>Division</u></b>

**Lesson #54 - Translating Expressions**

An Expression is a mathematical sentence that DOES NOT CONTAIN an equal sign. There are different parts to every expression.



**Identify the parts of the following expressions.**

1) $3x - 5$ Coefficient: _____ Variable: _____ Constant: _____	2) $9 + 2x$ Coefficient: _____ Variable: _____ Constant: _____	3) $-8 - 15x$ Coefficient: _____ Variable: _____ Constant: _____
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Just like you can translate something from English to Spanish, you can translate words into a numerical expression.

<u>Operation</u>	<u>Verbal Expression</u>	<u>Algebraic Expression</u>
<b>+</b>	<ul style="list-style-type: none"> <li>• A number increased by 3</li> <li>• The sum of a number and 3</li> <li>• 3 more than a number</li> <li>• A number plus 3</li> </ul>	
<b>-</b>	<ul style="list-style-type: none"> <li>• The difference of a number and 5</li> <li>• A number minus 5</li> <li>• A number diminished by 5</li> <li>• A number decreased by 5</li> <li>• 5 subtracted from a number</li> <li>• 5 less than a number</li> </ul>	
<b>X</b>	<ul style="list-style-type: none"> <li>• The product of 2 and a number</li> <li>• A number times 2</li> <li>• A number multiplied by 2</li> </ul>	
<b>÷</b>	<ul style="list-style-type: none"> <li>• A number divided by 6</li> <li>• The quotient of a number and 6</li> </ul>	
<b>=</b>	<ul style="list-style-type: none"> <li>• A number increased by 12 is 20</li> </ul>	

**Examples:** Translate the following sentences into expressions or equations. Underline key words and use “n” as “the number”.

4) five times a number is 30. \_\_\_\_\_

5) 2 subtracted from x \_\_\_\_\_

6)  $\frac{1}{4}$  of a number is 8. \_\_\_\_\_

7) the difference between twice a number and three is nine. \_\_\_\_\_

8) The sum of a number and 4 multiplied by  $\frac{1}{2}$ . \_\_\_\_\_

9) Henry fixes TV's. He charges \$25 for a diagnostic fee plus \$24 per hour. \_\_\_\_\_

**Now, You Try!** Translate the following sentences into an expression or equation. Use “n” as your variable.

10) Eleven less than a number \_\_\_\_\_

11) the product of a number and six is negative 18. \_\_\_\_\_

12) twice a number plus 12. \_\_\_\_\_

13) five times the sum of a number and four is 17. \_\_\_\_\_

14) Samantha bought jewelry at a crafts fair. She bought a necklace for \$8 and some bracelets for \$5 each. She spent \$23 in all. Write an equation that can be used to find the number of bracelets Samantha bought.

15) Five times a number increased by seven \_\_\_\_\_

16) Three times a number  $x$  subtracted from 24 \_\_\_\_\_

17) Anthony babysits for a neighbor on the weekends. He charges a flat fee of \$10 plus \$5 per hour. On Saturday, he makes \$30. Write an equation that can be used to find the number of hours Anthony works.

18) Write a verbal expression (sentence) for each expression below.

a) $m + 6$	b) $x^2 + 3$
c) $2x + 7$	d) $9 - x$