

### Substituting Values into Algebraic Expressions

Example 1: Calculate  $3m + 6$  if you are given that  $m = 2$   
 Answer: You have to "substitute" or "replace" the variable "m" with given value for "m", which in this case is 2.

$$\begin{aligned} & 3m + 6 \\ = & 3(2) + 6 && \text{MAKE SURE YOU} \\ = & 6 + 6 && \text{SHOW YOUR WORK} \\ = & 12 && \text{LIKE I HAVE!!!} \end{aligned}$$

NOTE: You must follow BEDMAS when calculating the value:

Example 2: Calculate  $3x + 8$  if you are given  $x = -2$

$$\begin{aligned} \text{Answer: } & 3x + 8 \quad \text{if } x = -2 \\ & = 3(-2) + 8 \\ & = (-6) + 8 \\ & = 2 \end{aligned}$$

Now try a few of these on your own. Remember to follow your order of operations. (BEDMAS)

Calculate the following:

a)  $12 - 2p$  when  $p = 2$

$$\begin{aligned} & 12 - 2(2) \\ & 12 - 4 \\ & 8 \end{aligned}$$

b)  $9 + 2r - 6$  when  $r = 4$

$$\begin{aligned} & 9 + 2(4) - 6 \\ & 9 + 8 - 6 \\ & 17 - 6 \\ & 11 \end{aligned}$$

c)  $a + 6b$  when  $a = 2$  and  $b = 3$

$$\begin{aligned} & (2) + 6(3) \\ & 2 + 18 \\ & 20 \end{aligned}$$

Complete the input/output chart Show work

Table of values

$$3n - 1$$

n	output
0	-1
1	2
2	5
3	8
4	11

} up by 3

$$\begin{array}{l}
 n=0 \\
 3n-1 \\
 3(0)-1 \\
 0-1 \\
 -1
 \end{array}
 \left. \vphantom{\begin{array}{l} n=0 \\ 3n-1 \\ 3(0)-1 \\ 0-1 \\ -1 \end{array}} \right\}
 \begin{array}{l}
 n=1 \\
 3n-1 \\
 3(1)-1 \\
 3-1 \\
 2
 \end{array}
 \left. \vphantom{\begin{array}{l} n=1 \\ 3n-1 \\ 3(1)-1 \\ 3-1 \\ 2 \end{array}} \right\}
 \begin{array}{l}
 n=2 \\
 3n-1 \\
 3(2)-1 \\
 6-1 \\
 5
 \end{array}$$

### Homework Worksheet

all # 1      write out  
 # 4      on  
 # 5a be      your paper

## Attachments

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Sub the x value into expression.pdf