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Notes

Algebra Section 4.7

Pages 262-268

Goal: "You will use function notation"

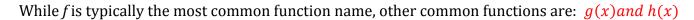
## **Function Notation:**

$$f(x) = mx + b$$



x is still the input. It does not mean  $f \cdot x$ 

Now instead of calling y the output, it is being called f(x)



f(7) would just mean to <u>substitute</u> 7 in for x into the given function.

## Finding an output given an input.

Example: What is the value of the function f(x) = 3x - 15 when x = -3?

$$f(-3) = 3(-3) - 15$$
  
 $f(-3) = -9 - 15$   
 $f(-3) = -24$ 

Try These

1) Evaluate 
$$h(x) = -7x$$
 when  $x = 7$ 

$$h(7) = -7(7)$$

$$h(7) = -49$$

2) What is the value of the function 
$$f(x) = 2x + 12$$
 when  $x = -8$ ?

$$f(-8) = 2(-8) + 12$$
  
 $f(-8) = -16 + 12$   
 $f(-8) = -4$ 

## Finding an input given an output.

Example: For the function f(x) = 2x - 10, find the value of x so that f(x) = 6.

$$6 = 2x - 10$$

$$16 = 2x$$

$$8 = x$$

Try This:

For the function f(x) = -2x + 4, find the value of x so that f(x) = 16.

$$16 = -2x + 4$$

$$12 = -2x$$

$$-6 = x$$



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