PreTest

1. Consider the following two function definitions:

$y = x + 4$ $y = 4x$

Which of these will always produce the larger value? Explain your answer.

2. Consider the following two function definitions:

$y = x + x$ $y = 2x - 1$

Which of these functions will always produce the larger value? Explain your answer.

3. Check the box next to all *true statements* about functions. If it's not true, leave it unchecked.

- ☐ A function is the value of a number
- ☐ A function is a rule that takes in an input and produces an output
- ☐ A function is a number problem with multiple answers
- ☐ A function is a graph with two axes
- ☐ A function is how you figure out the value of a variable
- ☐ A function can be described with a bunch of input/output examples
- ☐ The only thing you can do with a function is compute an answer
- ☐ The only thing you can do with a function is draw a graph for it
- ☐ A function is an equation that changes value
- ☐ A function is an expression with variables
- ☐ A function is a math problem where there is one output for every input
- ☐ I have no idea what a function is (I'm guessing at all of these)

4. **Consider the expression 7n + 5**

a. The arrow points to n. What does n stand for?

b. Could n represent 21? Why or why not?

c. Could n represent the expression (32 - 9)? Why or why not?

d. How many different numbers could n represent?