

Term 2 Review

20. I CAN translate algebraic expressions. _____/4Fill in the table with the missing *mathematical expression*.

	Statement	Mathematical Expression
a.	The difference of a number and 5	
b.	b divided by c	
c.	7 increased by a number	
d.	8 times the product of 2 and n	

21. I CAN evaluate algebraic expressions. _____/4

Evaluate each algebraic expression for each given variable.

a. $-2x - 3$ if $x = 8$ _____

c. $2(10 - k)$ if $k = -5$ _____

b. $2g - 5g$ if $g = -1$ _____

d. $\sqrt{y + 6}$ if $y = -2$ _____

22. I CAN combine like terms. _____/4

Simplify each algebraic expression by combining like terms if possible.

a. $5y - 3 + 2y$ _____

b. $9j - 4k + j - 2k$ _____

c. $-3x + x + 6 - 2$ _____

d. $7g + 2h - 4 - 3g + 4$ _____

23. I CAN use the distributive property. _____/4

Simplify each algebraic expression by using the distributive property and combining like terms.

a. $8(3x - 4)$ _____

b. $-5(y - 5)$ _____

c. $6(-2a + 9) - 7$ _____

d. $3x - 4(5 + 2x)$ _____

24. I CAN solve one-step equations. _____/4

Solve each equation. Show ALL work.

a. $-4 + x = 7$ _____

b. $\frac{y}{8} = -3$ _____

c. How many lollipops could you buy with \$10 if each lollipop costs \$2?

- Define a variable to represent your unknown: _____
- Write an equation to model the situation: _____
- Solve your equation:

25. I CAN solve two-step equations. _____/4

Solve each equation. Show ALL work.

a. $-9x + 6 = -12$ _____

b. $\frac{a}{5} - 4 = 1$ _____

26. I CAN solve multi-step equations. _____/4

Solve each equation. Show ALL work.

a. $2x - 3 + 5x = 11$ _____

b. $4(2y - 7) + 8 = 4$ _____

27. I CAN solve equations with one, no, and infinite solutions. _____/4

Solve each equation. Show ALL work.

a. $-2x - 6 + 5x = 6 + 3x$ _____

b. $4(x - 5) = 4x - 20$ _____

28. I CAN solve equations with rational coefficients. _____/4

Solve each equation. Show ALL work.

a. $\frac{12}{11}g = 36$

b. $\frac{1}{8}x = -2$

Answer: _____

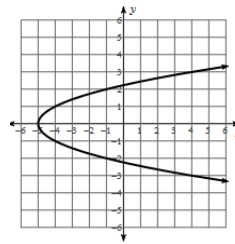
Answer: _____

29. I CAN identify functions in different representations. _____/4

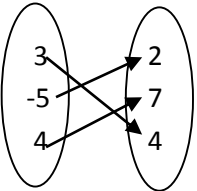
Determine whether the relationship is a function. EXPLAIN why or why not.

a. Rue created a “subtract five” machine. If you put a number into the machine, it outputs a number that is five less than the number you put in.

Is it a function? **yes** or **no**
Why or why not? _____



b. Is it a function? **yes** or **no**
Why or why not?

c.  Is it a function? **yes** or **no**
Why or why not? _____

d.

x	y
-2	4
5	-1
5	-3

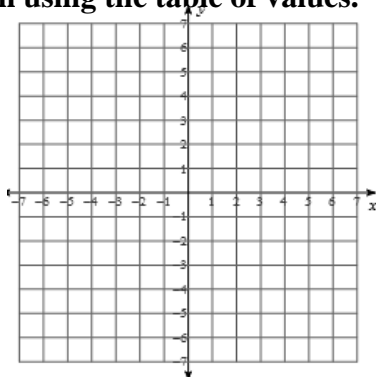
 Is it a function? **yes** or **no**
Why or why not?

30. I CAN graph a function given a table. _____/4

Graph each function using the table of values.

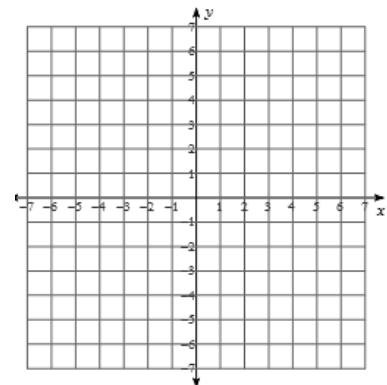
a.

x	y
0	-6
3	0
5	-4



b.

x	y
-2	4
3	6
6	-3



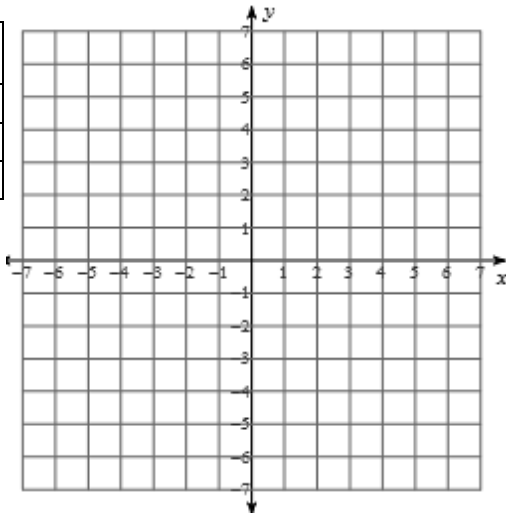
31. I CAN graph a function given a function rule. _____/4

Given the function rule, choose the inputs. Use 0, one positive number, and one negative number, then find the outputs. Graph the function on the coordinate grid. Remember to connect the points.

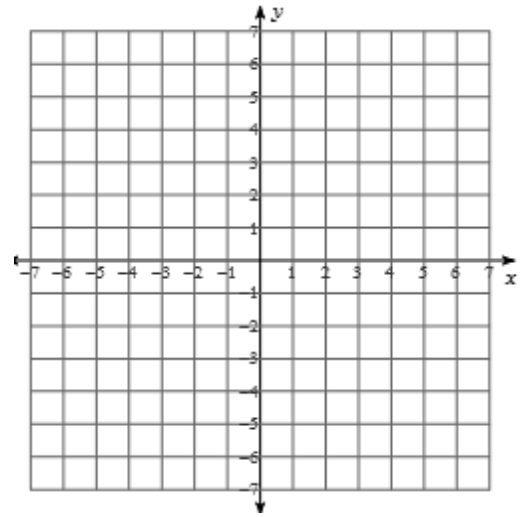
a. Function Rule: $y = -x - 2$

b. Function rule: $y = 2x + 1$

Input X	Output y



Input X	Output y



32. I CAN identify rate of change and unit rate. _____/4

Find the rate of change and the unit rate of change.

a. Suzie hits 12 baseballs in 3 minutes

Write the rate as a ratio: _____

What is the unit rate?

_____ snowballs/second

b. There were 24 donuts for 12 people.

Write the rate as a ratio: _____

What is the unit rate?

_____ donuts/person

c.

Hours Driving	Miles Away
2	120
4	240
6	360
8	480

Write the rate of change as a ratio:

$\frac{\text{Change in Miles}}{\text{Change in Hours}} = \underline{\hspace{2cm}}$

What is the unit rate of change?

_____ miles per hour

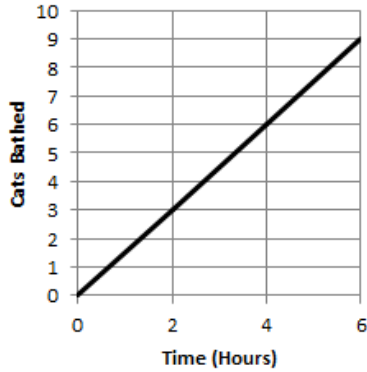
33. I CAN compare functions in different representations. _____/4

a. Who was bathing cats **faster**?

Situation #1:

Quinn bathed cats according to the following graph:

Bathin' Cats



Unit Rate of Change:

Who was bathing cats faster?

Situation #2:

Connie ate cookies according to the following table:

Time (Hours)	Cats Bathed
0	0
3	4
6	8
9	12

Unit Rate of Change:

b. Who earned more per hour?

Situation #1:

JimBob's salary was represented by the function rule:

$$y = 5x$$

Rate of Change:

Situation #2:

Roger is a babysitter. He earned \$30 for working 5 hours.

Rate of Change:

Who earned more per hour?

34. I CAN classify functions as linear or non-linear. _____/4

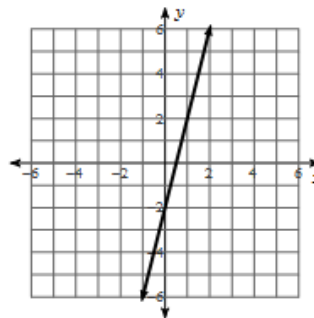
Determine whether the relationship is linear or non-linear. Explain why or why not.

a. Josie played soccer. In the first game, she scored 2 points. In the second game, she scored 3 points. In the third game, she didn't score any points.

Linear or **Non-Linear**

Explain:

b.



Circle one:

Linear Function

Non-Linear Function

Not a function

Explain:

c.

Input	Output
2	5
4	3
8	0
10	-6

Linear or **Non-Linear**

Explain:

d. $y = 3x + 7$

Linear or **Non-Linear**

Explain: