8.15ab

1. Identify all of the true statements.

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All functions are relations, but not all relations are functions.

In any set of ordered pairs, the second coordinate is called the domain.

A function is a relation between a set of inputs and a set of outputs with the property that each input is related to exactly one output

2. The table defines a function.

Changes in Joshua's Height Per Year				
Year	2002	2003	2004	2005
Change in height (inches)	2.5	2.25	1.5	0.75

What is the domain of the function?

3. Complete the function table below. Then, list all of the domain and range values.

$$y = x^2 + 1$$

x	y
-1	
	1
2	
	10

Domain: _____

Range: _____

4. Does the following relation represent a function?

$$\{(1,4),(2,8),(1,12),(3,16)\}$$

YES   NO   (circle one)

Explain your reasoning. _____
_____
_____

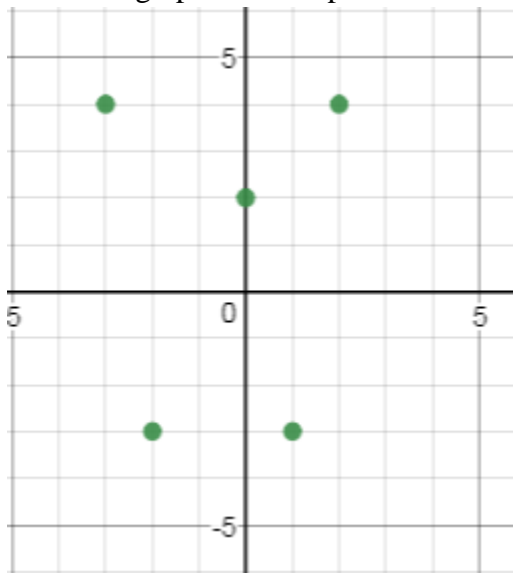5. Does the following relation represent a function?

x	y
-2	-5
0	1
5	-5
9	6

YES   NO   (circle one)

Explain your reasoning. _____
_____
_____

6. Does the graph below represent a function?   YES   NO (circle one)

Explain your reasoning for your answer. _____

_____

7. Marissa used the set of ordered pairs below to graph a relation.

$$\{(3,4),(2,3),(2,0),(4,2),(3,6)\}$$

What is the domain of the relation?

A. $\{0,2,3,4,6\}$

B. $\{2,3,4\}$

C. $\{0,2,3,4\}$

D. $\{0,3,6\}$

8. In the linear equation shown, which variable would represent the output (range) values?

$$y = mx + b$$

A. y

B. m

C. x

D. b

9. Alex created a table to represent the function $y = 2x + 4$. What is the range for this table of values?

x	y
-2	0
0	4
2	8
4	12

10. Which of the following does NOT represent a function?

A.

x	y
-2	1
3	4
0	2
1	-3
-1	0

B.

x	y
3	-1
0	2
-1	4
2	3
1	1

C.

x	y
-1	5
2	2
5	2
3	-6
2	-4

D.

x	y
-2	4
3	-5
1	2
-3	4
0	1