Algebra Quick Quiz10162023

Name.....

Periods.....

1.

Which equation represents the relationship shown in the table at the right?

A.
$$y = -x - 3$$

B.
$$y = x - 3$$

C.
$$y = 2x - 3$$

C.
$$y = 2x - 3$$

D. $y = -2x + 3$

X	y	
0	-3)
1	-1)
2	1)
3	3)

2.

In a relationship between variables, what is the variable called that changes in response to another variable?

F. function

H. independent variable

G. input function

I. dependent variable

3.

A lawn care company charges a \$10 trip fee plus \$0.15 per square foot of x square feet of lawn for fertilization. Which equation represents the relationship?

A.
$$x = 0.10y + 15$$

A.
$$x = 0.10y + 15$$
 B. $y = 0.15x + 10$ **C.** $y = 10x + 0.15$ **D.** $x = 10y + 0.15$

C.
$$y = 10x + 0.15$$

D.
$$x = 10y + 0.15$$

4.

Which equation represents the relationship shown in the graph?

F.
$$y = -2x$$

G.
$$y = 2x$$

H.
$$y = -\frac{1}{2}x$$

I. $y = \frac{1}{2}x$

5.

Find the missing output values for the function table.

input (n)	output $\left(\frac{1}{2}n\right)$	
1	?	
2	?	
3	?	

OA. 0, 2, 4

- ⊕ B. 1, 2, 3
- \bigcirc C. $\frac{1}{2}$, 1, $1\frac{1}{2}$
- D. 2, 4, 6

6.

Find the rule for the function table.

n	?
0	0
1	3
2	6
○ A.	n + 4
⊕C.	3n

7.

Find the missing output values for the function table.

Input (n)	Output (4n)	
0	?	
1	?	
2	?	

1	?
2	?

 \bigcirc A. 3, 2, 1

OB. 40, 41, 42

© C. 0, 4, 8

OD. 4, 5, 6

8.

Wesley is selling lemonade. The price of a cup of lemonade is \$1. However, customers can refill the cup for \$0.20. If one customer got a cup of lemonade and 3 refills, how much did that customer pay?

OA. \$3.20 ○B. \$3.60 OC. \$1.20 OD. \$1.60

9.

Jamaal started a savings account with \$25 he received for his birthday. He added \$3 to the account each week. How many weeks will it take for the amount in the account to reach \$100?

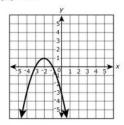
A. 42 weeks B. 25 weeks OC. 4 weeks D. 34 weeks The table below shows the relationship between the number of teachers and the number of students going on a field trip. How can the relationship be described using words, an equation, and a graph?

Field Trip					
Teachers	2	3	4	5	6
Students	34	51	68	85	102

11.

Bonus

The graph shows the function $y=g\left(x\right)$, where $g\left(x\right)$ represents a transformation of $f\left(x\right)=x^{2}.$



What is the equation for g(x)?

- O A. $g(x) = (x-2)^2 1$
- O B. $g(x) = (x+2)^2 1$
- O. $g(x) = -(x-2)^2 + 1$
- O D. $g(x) = -(x+2)^2 + 1$