

Algebra Quick Quiz10172024

Name.....

Periods.....

1.

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

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

- A.  $y = -x - 3$                       C.  $y = 2x - 3$   
 B.  $y = x - 3$                          D.  $y = -2x + 3$

2.

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

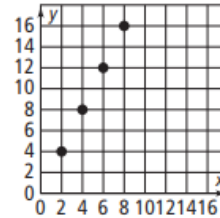
- F. function                                 H. independent variable  
 G. input function                         I. dependent variable

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

4.



Which equation represents the relationship shown in the graph?

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

5.

Find the missing output values for the function table.

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

- Ⓐ. 0, 2, 4                                    Ⓑ. 1, 2, 3  
 Ⓒ.  $\frac{1}{2}, 1, 1\frac{1}{2}$                              Ⓓ. 2, 4, 6

6.

Find the rule for the function table.

$n$	?
0	0
1	3
2	6

- A.  $n + 4$                        B.  $n$   
 C.  $3n$                                D.  $n + 2$

7.

Find the missing output values for the function table.

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

- A. 3, 2, 1                       B. 40, 41, 42  
 C. 0, 4, 8                       D. 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?

- A. \$3.20                       B. \$3.60  
 C. \$1.20                       D. \$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  
 C. 4 weeks                       D. 34 weeks

10.

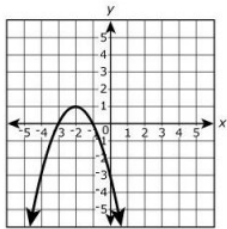
The table below shows the relationship between the number of teachers and the number of students going on a field trip. How can the relationship be described using words, an equation, and a graph?

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

11.

Bonus

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



What is the equation for  $g(x)$ ?

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