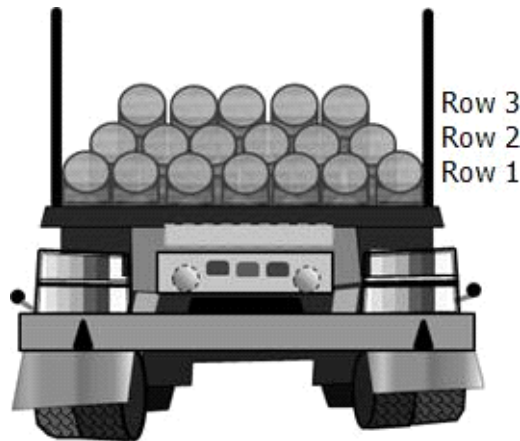


Practice - 7.12 - Patterns, Functions, and Algebra
Exam not valid for Paper Pencil Test Sessions

- 1 Gary has loaded logs onto his truck and noticed a relation between the number of the row of logs (domain) and the number of logs (range) within that row.



Which rule appears to be followed in this relation?

- A The domain is one less than the range.
 - B The range is eight more than the product of negative one and the domain.
 - C The range is one less than the domain.
 - D The domain is eleven more than the product of one and the range.
- 2 Mark is stacking cans at the grocery store and notices that there is a relation between the row number (domain) and the number of cans in that row (range).



Which rule appears to be followed in this relation?

- A The range is eleven more than the product of negative one and the domain.
- B The domain is eleven more than the product of one and the range.
- C The range is one less than the domain.
- D The domain is one less than the range.

3 Which table contains the values that satisfy the following function

$$y = 3x + 1?$$

A

x	y
-1	-2
0	1
1	4
2	7

B

x	y
-1	-2
0	1
1	6
2	3

C

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

D

x	y
-1	-2
0	-1
1	3
2	6

4 Which is true for all values in the table below?

x	y
0	2
1	3
2	4
3	5

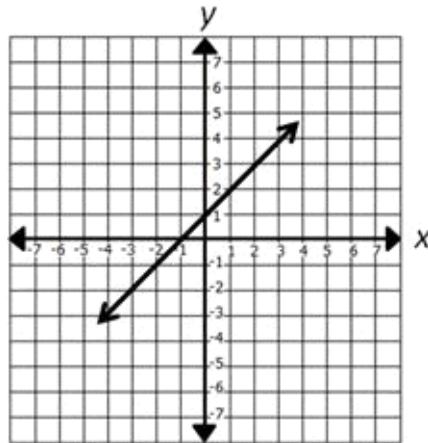
A $y = x^2$

B $y = x + 2$

C $y = x - 2$

D $y = 2x$

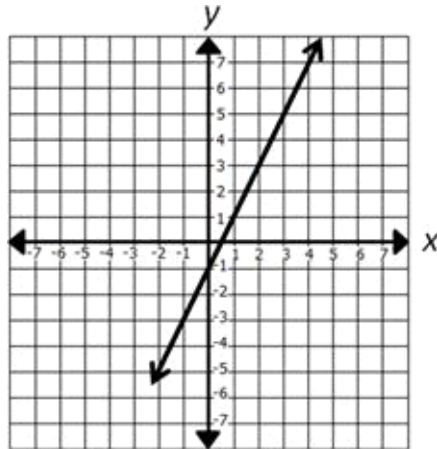
5 Look at the graph.



Which appears to be the rule used in the equation graphed?

- A The range is one more than the domain.
- B The range is one less than twice the domain.
- C The domain is one more than the range.
- D The domain is one more than twice the range.

6 Look at the graph.



Which appears to be the rule used in the equation graphed?

- A The domain is one more than twice the range.
- B The range is one less than twice the domain.
- C The range is one less than the domain.
- D The domain is one more than the range.

7 Which table contains values that satisfy the following function

$$y = -2x + 4?$$

A

x	y
-2	8
0	3
2	1
3	-2

C

x	y
-2	8
0	4
2	0
3	-2

B

x	y
-1	6
0	4
1	2
2	8

D

x	y
-1	6
0	-2
1	4
2	0

8 $\{(-3, -13), (0, -4), (-3, 2), (6, 14), (7, 2)\}$

This set of ordered pairs can be described as a —

- A function
- B straight line
- C vertical line
- D relation

9 Which is true for all values in the table below?

x	y
-3	-5
-2.5	-4
0	1
2	5

- A $y = x$
- B $y = x + 1$
- C $y = x + -2$
- D $y = 2x + 1$

10 Which is true for all values in the table below?

x	y
1	-1
2	2
3	5
4	8
5	11

- A $y = 3x + 4$
- B $y = -3x - 4$
- C $y = 3x - 4$
- D $y = -3x + 4$

11 Which value is missing in the table?

x	y
-4	0
0	-4
4	

- A -8
- B 4
- C 12
- D 8

12 Look at the relation.

$$\{(-3, -13), (0, -4), (2, 2), (6, 14), (7, 17)\}$$

Which appears to be the rule used in the relation?

- A The range is four less than three times the domain.
- B The domain is four less than three times the range.
- C The range is four less than the domain.
- D The domain is ten more than the range.

13 Look at the table.

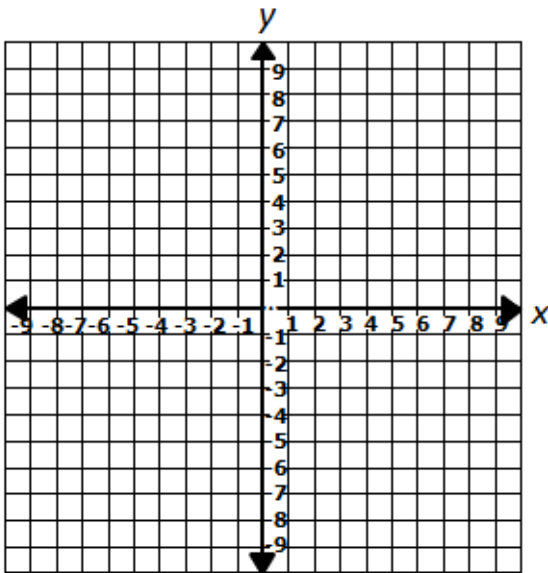
x	y
3	11
4	13
5	15
6	

Which value is missing in the table?

- A 16
- B 15
- C 19
- D 17

14 Directions: Click on a box to choose each ordered pair you want to select. You must select all correct ordered pairs.

Identify points that are on the line represented by $y = 2x - 8$.



- | | |
|-----------|-----------|
| $(7, 5)$ | $(5, 3)$ |
| $(7, 6)$ | $(1, -6)$ |
| $(2, -3)$ | $(5, 2)$ |
| $(2, -4)$ | $(6, 4)$ |

15 Directions: Click on a box to choose each set of ordered pairs that you want to select. You must select all correct sets of ordered pairs.

Identify each set of ordered pairs that lie on the line represented by $y = 6x - 2$.

- | |
|-------------------------------------|
| $\{(-10, -62), (2, 10), (9, 52)\}$ |
| $\{(-4, -26), (1, 4), (5, 28)\}$ |
| $\{(-3, -20), (3, 10), (8, 46)\}$ |
| $\{(-1, -8), (5, 22), (7, 45)\}$ |
| $\{(-9, -56), (-2, -14), (6, 34)\}$ |

