Quiz 2.4: Linear Functions

Multiple Choice: *Choose the letter that corresponds to the correct answer. Write the answer in your notebook.*

1. A line that the graph of a function approaches but never intersects is called:
   A. Asymptote B. Vertical line test C. x-axis D. y-axis
2. A function whose graph is a slant line is called:
   A. Linear Function B. Linear Equation C. Linear Inequality D. Linear Inequation
3. The set of all permissible values of x that give real values for y is called:
   A. Domain B. Function C. Range D. Relation
4. The set of permissible values for y or $f(x)$ that give the values of x real numbers is called:
   A. Domain B. Function C. Range D. Relation
5. Which of the following is a NOT linear function?

   A.

x	-3	-1	1	3	5
y	-16	-6	4	14	24

   C.

x	-2	-1	0	1	2
y	-1	2	5	8	11

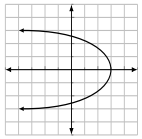
   B.

x	-5	-4	-3	-2	-1
y	15	11	7	3	-1

   D.

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

6. Which of the following functions has a degree of 0?
   A. $f(x) = -2x - 1$ B. $f(x) = 2(x + 3)$ C. $f(x) = 0$ D. $f(x) = -4$
7. Which of the following is NOT a linear function?
   A. $f(x) = -6x - 7$ B. $f(x) = 2(x - 3)$ C. $f(x) = -4x^2$ D. $f(x) = -4$
8. Which of the following functions has an undefined degree?
   A. $f(x) = -2x - 1$ B. $f(x) = 2(x + 3)$ C. $f(x) = 0$ D. $f(x) = -4$
9. If $f(x) = 4x - 1$, find $f(-1)$.
   A. $f(-1) = -4$ B. $f(-1) = -5$ C. $f(-1) = 4$ D. $f(-1) = 5$
10. What is the domain of the function $g(x) = \sqrt{x+1}$?
    A. $D = \{x | x \geq -1\}$ B. $D = \{x | x \geq 0\}$ C. $D = \{x | x \geq 1\}$ D. $D = \{x | x \geq 2\}$
11. What are the domain and the range of the funtion shown in following graph?



    A. $D = \{x | x > 3\}, R = \{y | y \in \mathbb{R}\}$ C. $D = \{x | x < 3\}, R = \{y | y \in \mathbb{R}\}$
    B. $D = \{x | x \geq 3\}, R = \{y | y \in \mathbb{R}\}$ D. $D = \{x | x \leq 3\}, R = \{y | y \in \mathbb{R}\}$

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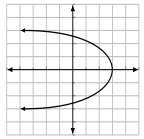

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