

Quiz 7.1

What is the domain and range of the relation shown in the table provided? Determine if the relation is a function.

1. Domain:

- A. $\{6, -4, 9, -2\}$
 B. $\{6, 9, 3, 0\}$
 C. $\{3, 0, 2\}$
 D. $\{-4, -2, 0, 2\}$

2. Range:

- A. $\{6, -4, 9, -2\}$
 B. $\{6, 9, 3, 0\}$
 C. $\{3, 0, 2\}$
 D. $\{-4, -2, 0, 2\}$

3. Function?

- A. Function
 B. Not a Function

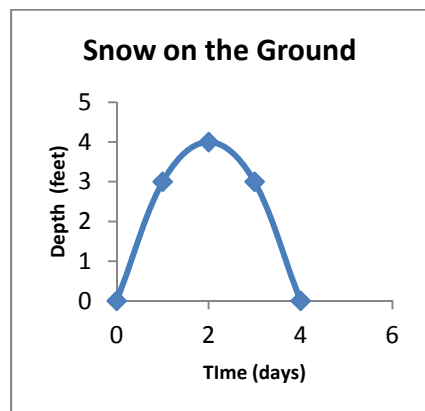
x	y
6	-4
9	-2
3	0
0	2

Determine which set of ordered pairs represent a function.

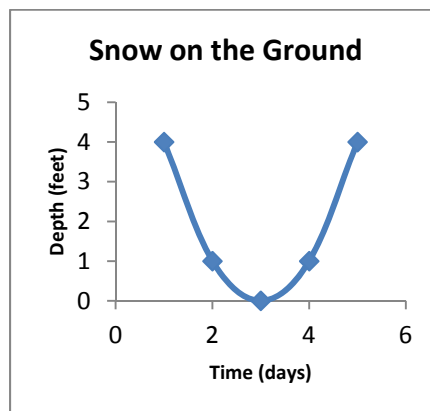
4. A. $\{(8, 2), (4, 7), (2, 2), (8, -3)\}$
 B. $\{(7, 1), (10, 3), (7, 4), (19, -5)\}$
 C. $\{(6, -9), (4, -9), (3, -9), (2, -9)\}$
 D. $\{(7, -5), (8, -8), (8, 12), (-13, 2)\}$

5. The amount of snow on the ground is melting at a constant rate. Assume that no new snow falls. Which graph best represents the path of the amount of snow on the ground over time?

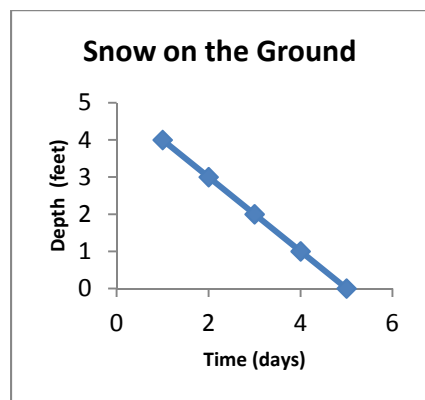
A.



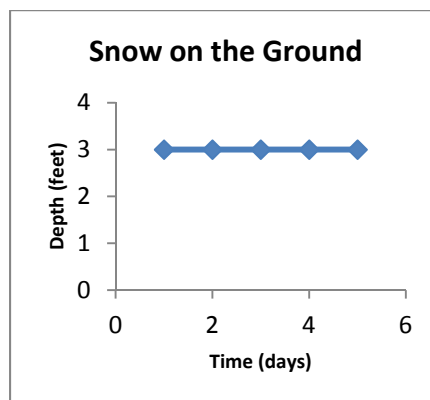
B.



C.

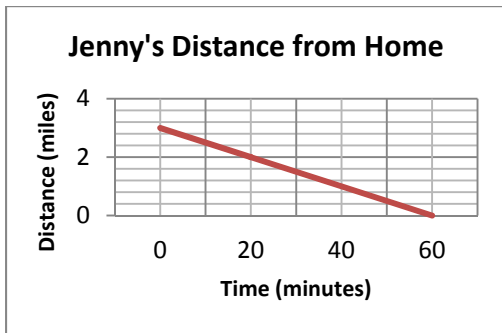


D.

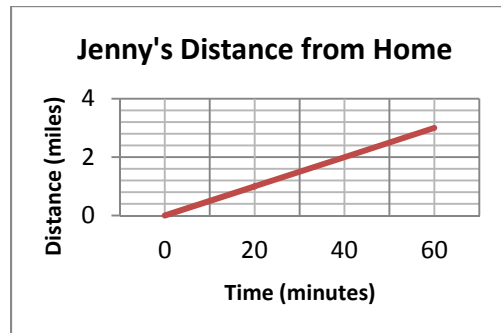


6. Jenny rode her bike from home to a friend's house at a constant speed. Jenny then returned around and immediately rode her bike home at a faster rate. Assume Jenny rode her bike along a straight path to her friend's home and back again. Which graph best represents Jenny's distance from her home over time?

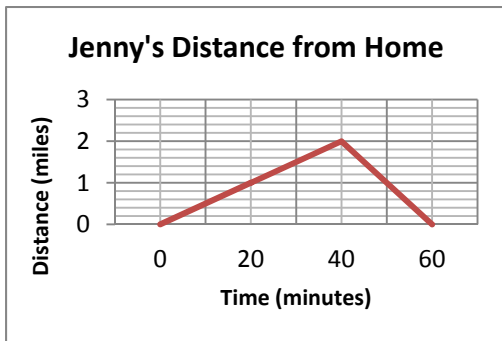
A.



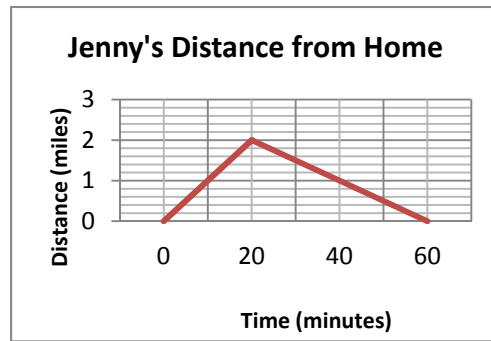
B.



C.



D.



In each of the following problems, a linear equation has been solved incorrectly. You need to determine where the mistake was made and then solve the equation for the correct answer.

7. $8x - 2(x - 3) = 5 + 12x + 13$

$$8x - 2x - 6 = 12x + 5 + 13$$

$$6x - 6 = 12x + 18$$

$$-6 = 6x + 18$$

$$-24 = 6x$$

$$-4 = x$$

A. Distributed the -2 incorrectly, -2

B. Combined like terms incorrectly, -1

C. Subtracted x from both sides incorrectly, $-4/3$

D. Subtracted 18 from both sides incorrectly, 2

8. $3 + 5(6 - x) = -3x - 17$

$$3 + 30 - 5x = -3x - 17$$

$$27 - 5x = -3x - 17$$

$$27 = 2x - 17$$

$$44 = 2x$$

$$22 = x$$

A. Distributed the 5 incorrectly, -25

B. Combined like terms incorrectly, 25

C. Subtracted x from both sides incorrectly, -7

D. Added 17 to both sides incorrectly, 5