

Homework 7.2

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

1.

x	y
3	-2
1	5
6	-1
3	4

Domain:

Range:

Function?

2.

x	y
8	9
2	-2
10	3
5	2

Domain:

Range:

Function?

3.

x	y
-7	3
5	4
6	7
1	-8

Domain:

Range:

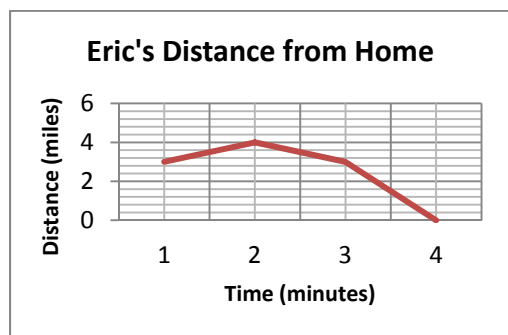
Function?

Determine which set of ordered pairs represent a function.

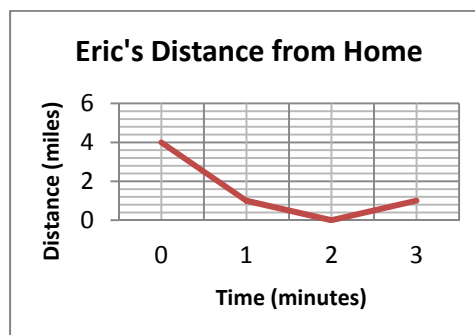
4. $\{(3, 5), (2, 6), (3, 4), (6, 6)\}$ 5. $\{(3, 8), (-3, 5), (5, 4), (8, 2)\}$ 6. $\{(-4, 4), (2, 8), (-1, 4), (1, 6)\}$ 7. $\{(2, 5), (-1, 2), (1, 8), (5, 3)\}$

8. Eric's rode his skateboard from the park to a friend's house. He then turned around and headed back to the park. After picking up his jacket at the park, Eric raced home. Which graph best represents Eric's distance from his home over time?

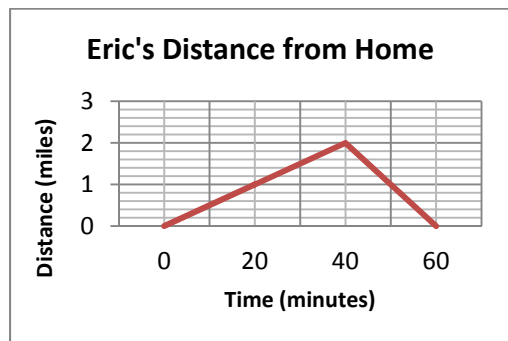
A.



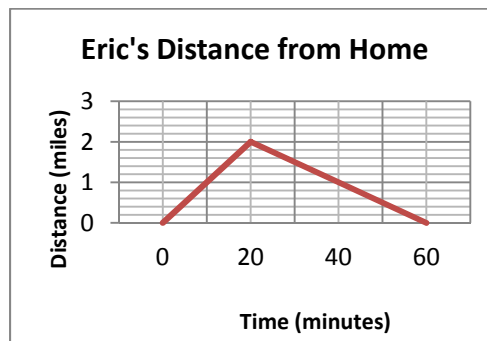
B.



C.

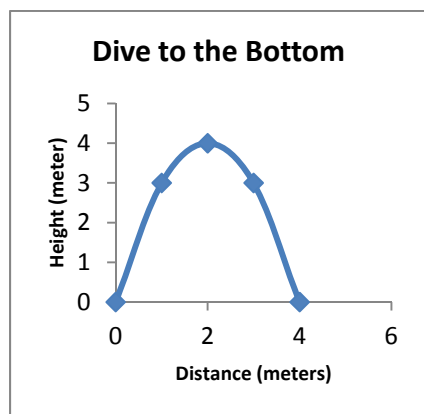


D.

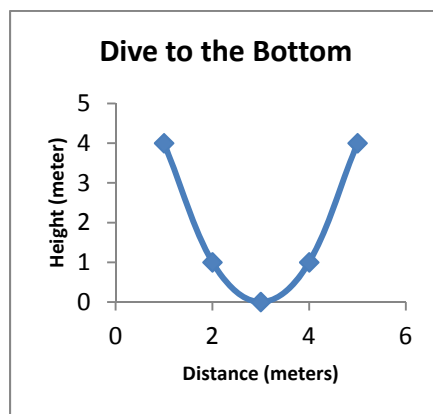


9. Dorothy dove to the bottom of the pool to pick up a diving stick. She then returned to the surface of the water. Which graph best represents the path of the Dorothy traveled through the water? Assume a height of zero is at the bottom of the pool.

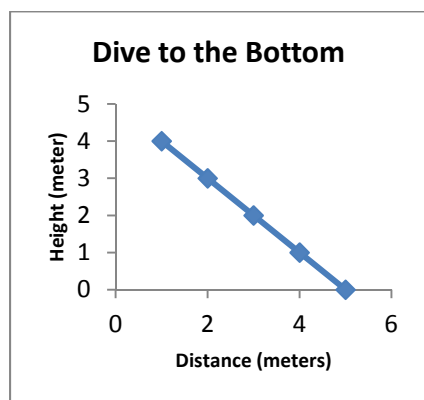
A.



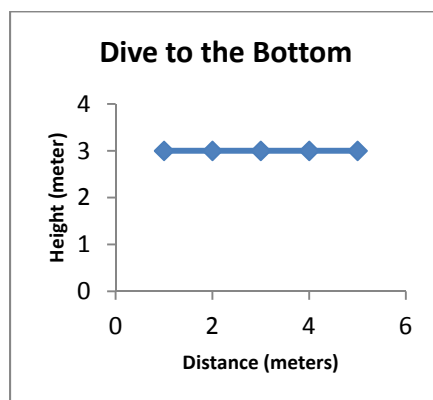
B.



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.

10. $5x - 18 = 3(x - 9) + x$

$$5x - 18 = 3x - 9 + x$$

$$5x - 18 = 2x - 9$$

$$3x - 18 = -9$$

$$3x = 9$$

$$x = 3$$

11. $1 + 4x = 6(x - 7) - 3x$

$$1 + 4x = 6x - 42 - 3x$$

$$1 + 4x = 3x - 42$$

$$1 + x = -42$$

$$x = -41$$

Answers:

- | | | |
|---------------------------|------------------------------|------------------------------|
| 1. Domain: $\{3, 1, 6\}$ | 2. Domain: $\{2, 5, 8, 10\}$ | 3. Domain: $\{1, 5, 6, -7\}$ |
| Range: $\{-2, -1, 4, 5\}$ | Range: $\{-2, 2, 3, 9\}$ | Range: $\{3, 4, 7, -8\}$ |
| Function? no | Function? yes | Function? yes |
4. Not a Function 5. Function 6. Function 7. Function
8. A. 9. B 10. Distributed incorrectly, -9
11. Added 1 to both sides incorrectly, -43