Algebra 1 ECA Remediation

Homework 7.2

Name ___Answer Key___

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: $\{3,1,6\}$

Range: $\{-2,5,-1,4\}$

Function? No

2.

x	y
8	9
2	-2
10	3
5	2

Domain: $\{2,5,8,10\}$

Range: $\{-2, 2, 3, 9\}$

Function? Yes

3.

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

Domain: $\{-7,1,5,6\}$

Range: $\{-8, 3,4, 7\}$

Function? Yes

Determine which set of ordered pairs represent a function.

4.   {(3, 5), (2, 6), (3, 4), (6, 6)}   Not a function

5.   {(3, 8), (-3, 5), (5, 4), (8, 2)}   function
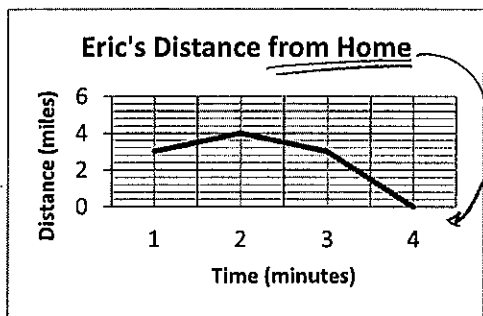
6.   {(-4, 4), (2, 8), (-1, 4), (1, 6)}   function

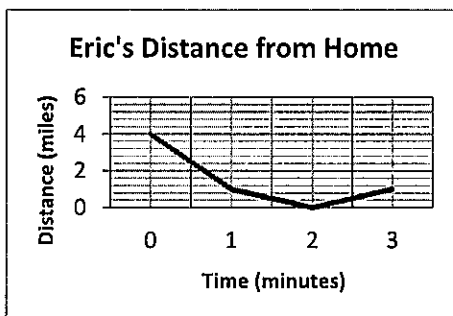7.   {(2, 5), (-1, 2), (1, 8), (5, 3)}   function

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?
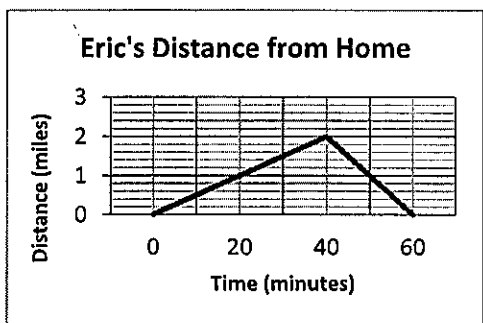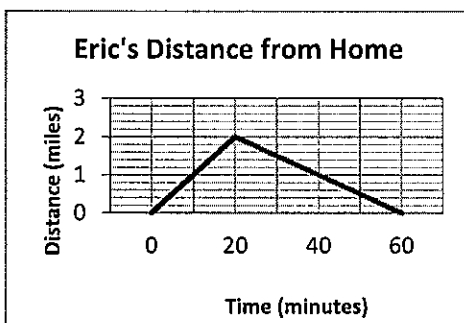
A.

Eric's Distance from Home

B.

Eric's Distance from Home

friend's House

Park

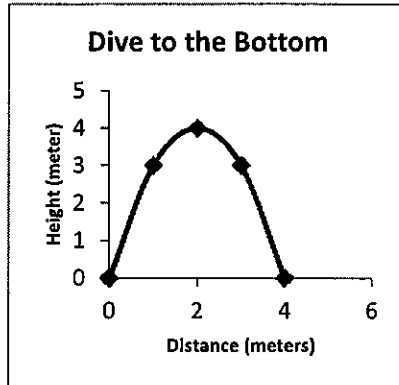Home

C.

Eric's Distance from Home
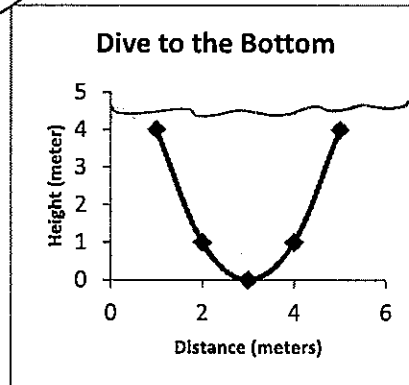
D.

Eric's Distance from Home

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.
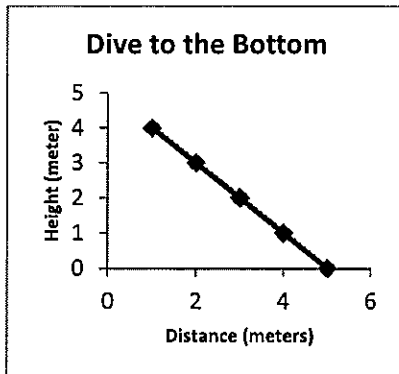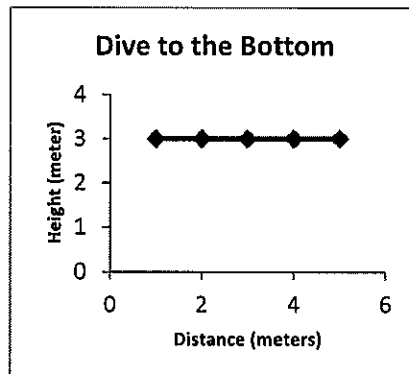
A.

Dive to the Bottom

C.

Dive to the Bottom

B.

Dive to the Bottom

D.

Dive to the Bottom

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

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

$5x - 18 = 2x - 9$

$3x - 18 = -9$

$3x = 9$

$x = 3$

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

$5x - 18 = 3x - 27 + x$

$5x - 18 = 4x - 27$

$-4x \qquad -4x$

$x - 18 = -27$

$+18 \qquad +18$

$x = -9$

distributed incorrectly

$x = -9$

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

$1 + 4x = 6x - 42 - 3x$ ✓

$1 + 4x = 3x - 42$ ✓

$1 + x = -42$ ✓

$x = -41$

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

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

$1 + 4x = 3x - 42$

$-3x \qquad -3x$

$1 + x = -42$

$-1 \qquad -1$

$x = -43$

Should have subtracted one from both sides instead of adding one.

$x = -43$

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