

Algebra 1 ECA Remediation  
Homework 7.3

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
-1	5
1	-2
3	2
5	6

Domain:  $\{-1, 1, 3, 5\}$

Range:  $\{-2, 2, 5, 6\}$

Function? *Yes*

2.

x	y
5	3
4	-1
2	7
4	8

Domain:  $\{2, 4, 5\}$

Range:  $\{-1, 3, 7, 8\}$

Function? *No*

3.

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

Domain:  $\{-3, -1, 3, 8\}$

Range:  $\{1, 3, 6, 7\}$

Function? *Yes*

Determine which set of ordered pairs represent a function.

4.  $\{(4, 7), (2, 7), (6, 2), (7, 1)\}$  *function*

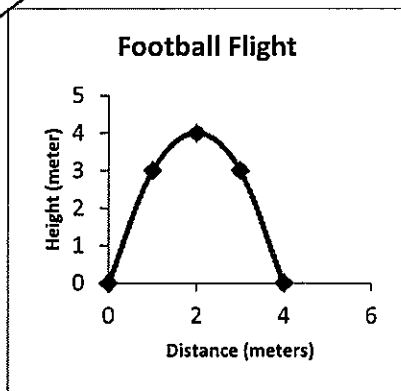
5.  $\{(3, 6), (1, 8), (9, 4), (9, -1)\}$  *Not a function*

6.  $\{(-2, 1), (5, 9), (-1, 7), (5, 11)\}$  *Not a function*

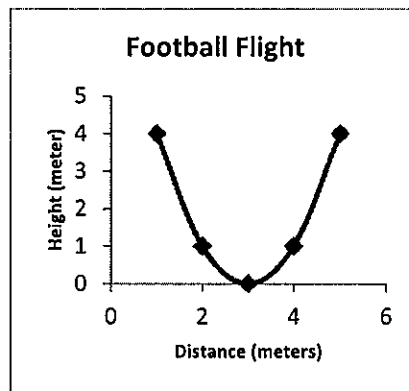
7.  $\{(2, 16), (3, 4), (5, 4), (10, 7)\}$  *function*

8. Pete threw a football into the air. Which graph best represents the path of the football as it travels through the air?

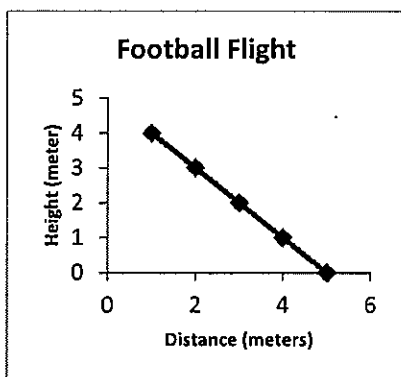
A



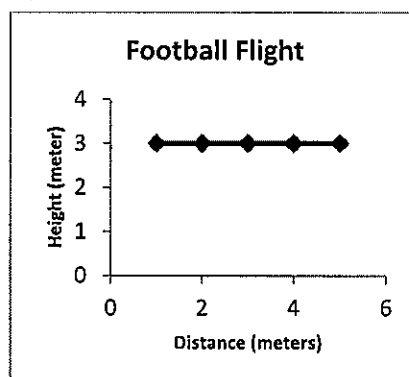
B.



C.

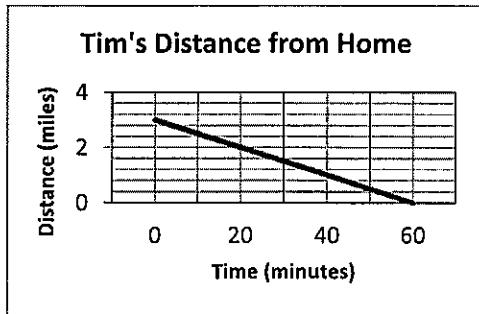


D.

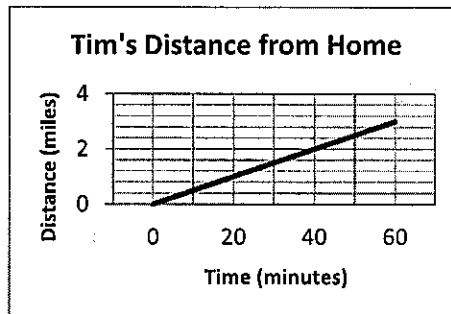


9. Tim rode his bike from home to school at a constant speed. Tim rode his bike along a straight path to school. Which graph best represents Tim's distance from his home over time?

A.

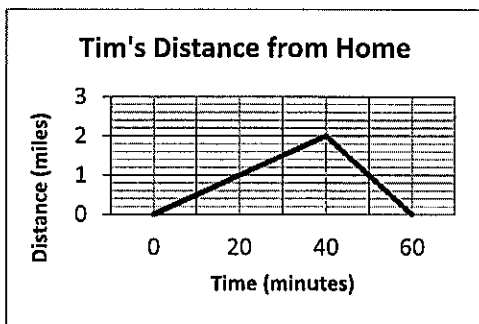


**B**

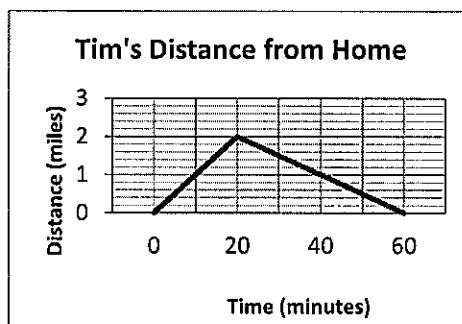


School  
/  
Home

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.  $3x - 9 = 2(x - 12) - 2x$

$$3x - 9 = 2x - 24 - 2x$$

$$3x - 9 = -24$$

$$3x = -33$$

$$x = -11$$

Should have added 9 to both sides instead of subtracting 9.

$$x = -5$$

$$3x - 9 = 2(x - 12) - 2x$$

$$3x - 9 = 2x - 24 - 2x$$

$$3x - 9 = -24$$

$$\begin{array}{r} +9 \quad +9 \\ \hline 3x = -15 \\ \hline 3 \quad 3 \end{array}$$

$$x = -5$$

11.  $7 - 2x = 7(8 - x) - 2x$

$$7 - 2x = 56 - x - 2x$$

$$7 - 2x = 56 - 3x$$

$$7 + x = 56$$

$$x = 49$$

distributed the 7 incorrectly

$$x = 7$$

$$7 - 2x = 7(8 - x) - 2x$$

$$7 - 2x = 56 - 7x - 2x$$

$$7 - 2x = 56 - 9x$$

$$\begin{array}{r} +9x \quad +9x \\ \hline 7 + 7x = 56 \end{array}$$

$$\begin{array}{r} -7 \quad -7 \\ \hline 7x = 49 \end{array}$$

$$\frac{7x}{7} = \frac{49}{7}$$

$$x = 7$$

Answers:

1. Domain:  $\{-1, 1, 3, 5\}$

2. Domain:  $\{5, 2, 4\}$

3. Domain:  $\{-3, -1, 3, 8\}$

Range:  $\{5, -2, 2, 6\}$

Range:  $\{3, -1, 7, 8\}$

Range:  $\{6, 7, 3, 1\}$

Function? yes

Function? no

Function? Yes

4. Function

5. Not a Function

6. Not a Function

7. Function

8. A.

9. B

10. Subtracted 9 from both sides incorrectly,  $-5$

11. Distributed incorrectly, 7