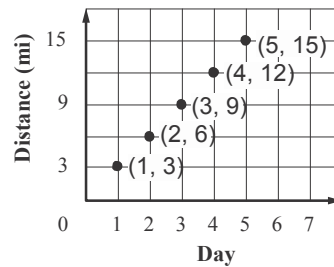Name _____ Date _____ Class_____

Worksheet 4.R: Functions Review | Chapters 3 & 4

1. Find an ordered pair that satisfies the following equation: $y = -5x + 2$?

1. _____

2. What is $f(-3)$ if $f(x) = -3x - 3$

2. _____

3. The graph at the right shows Shanequa's total distance in miles for each day she is training for a marathon. What is her distance on day 10?

Distance (mi)

15 ● (5, 15)
    ● (4, 12)
9   ● (3, 9)
    ● (2, 6)
3   ● (1, 3)

0   1 2 3 4 5 6 7
            Day

3. _____

4. Which table represents a linear function?

A.

x	5	2	−1	−4
y	6	7	10	12

C.

x	4	6	9	15
y	3	4	5	6

B.

x	−2	0	2	4
y	0	1	2	3

D.

x	7	4	1	−2
y	−1	−3	−6	−10

4. _____

5. Stephen Rogers' monthly cost of sending text messages can be represented by the function $y = 0.10x$, where y represents the total cost and x represents the number of text messages. The table shows Stephen's monthly cost of sending text messages.

Messages	**Cost ($)**
30	18
40	19
50	20
60	21

How much does Stephen pay per 100 text messages?

5. _____

6. Which of the following represents a nonlinear function?

6. _____

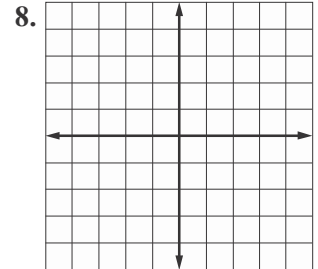**A.** $y = 8x + 10$ **B.** $y = x$ **C.** $y = -9x$ **D.** $y = 4x^2$

Worksheet 4.R: Functions Review | Chapters 3 & 4

7. King Arthur has a certain number of songs on his MP3 player. Each week, he plans to add 4 more songs. After 5 weeks, he had 40 songs on his MP3 player. How many songs did he start with?

7. _____

8. Sketch a graph with the following ordered pairs.
$\{(4, -1), (3, 2), (0, -3), (1, 4)\}$

8.

9. Complete the function table for $f(x) = 3x + 2$.

9.

x	$f(x)$
-2	
-1	
0	
1	

For Exercises 10 and 11, consider the following situation.

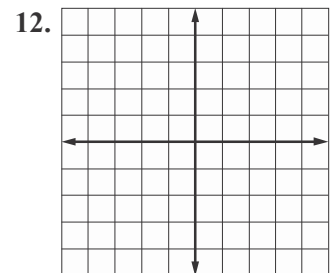The store, "All I Eat is Bacon" sells bacon for $5.30 per pound.

10. Write a function to represent the situation.

10. _____

11. Is the function continuous or discrete? Explain.

11. _____

12. Graph the $y = -2x + 4$.

12.

13. The value of a Pokémon card has increased steadily over time. Sketch a graph of the situation.

13.