

Quiz 12.1

What is the domain and range of the relation shown in the table provided?

Determine if the relation is a function.

x	y
8	2
4	-3
6	4
8	1

1. Domain:

A. {8, 2, 4, -3}

B. {6, 4, 8, 1}

C. {4, 6, 8}

D. {2, -3, 4, 1}

2. Range:

A. {8, 2, 4, -3}

B. {6, 4, 8, 1}

C. {4, 6, 8}

D. {2, -3, 4, 1}

3. Function?

A. Function

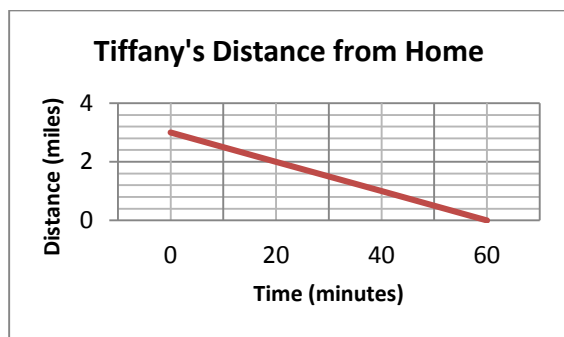
B. Not a Function

Determine which set of ordered pairs represents a function.

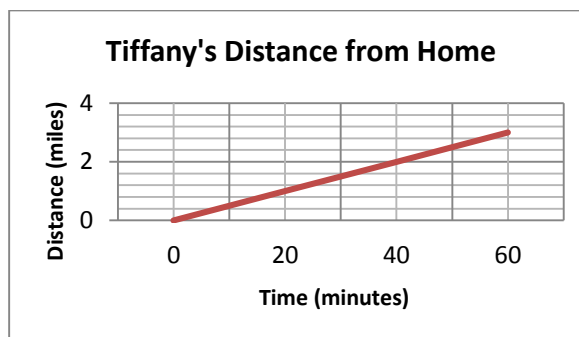
4. A. {(9, 3), (3, 1), (2, -2), (10, -4)}
B. {(5, 2), (12, 5), (2, 9), (12, -5)}
C. {(4, 7), (4, 1), (7, -3), (6, -1)}
D. {(6, -2), (9, -2), (6, 6), (2, 5)}

5. Tiffany rode her bike from her grandmother's house to her own home at a constant speed. Tiffany rode her bike along a straight path home. Which graph best represents Tiffany's distance from her home over time?

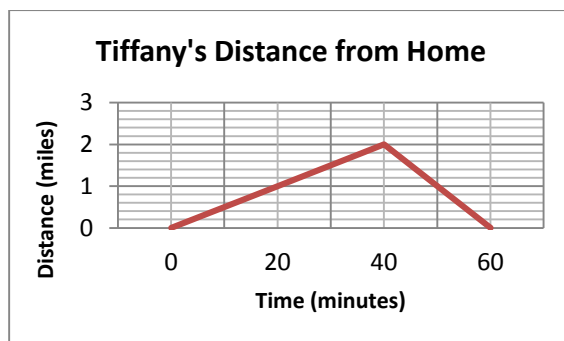
A.



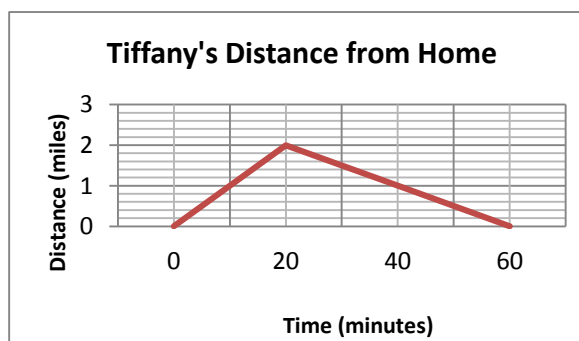
B.



C.

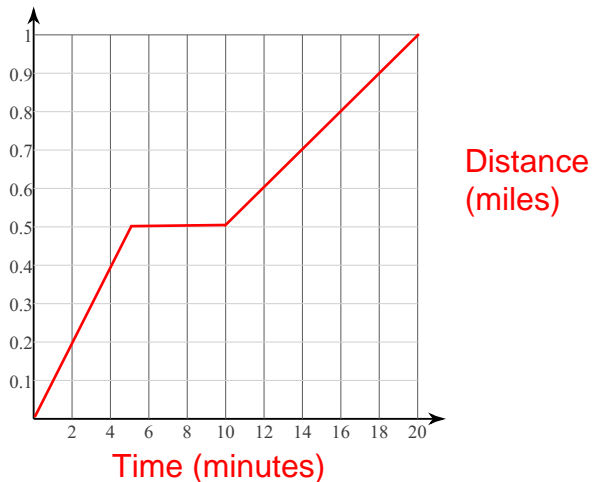


D.



Cindy rode her tricycle from home to school. The graph below shows Cindy's distance from home over time.

Cindy's Tricycle Ride



7. On what time interval is Cindy stopped?

- A) During the first 5 minutes
- B) 10 minutes to 20 minutes
- C) 5 minutes to 10 minutes
- D) never

6. On what time interval is Cindy traveling at 6 mph?

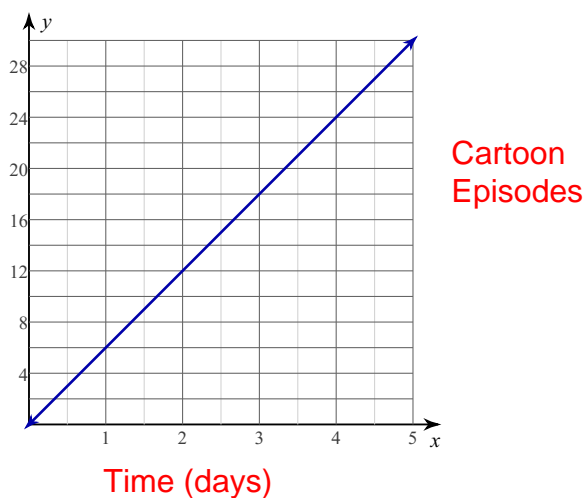
- A) The first 5 minutes
- B) 5 minutes to 10 minutes
- C) never
- D) 10 minutes to 20 minutes

8. On what time interval is Cindy traveling the fastest?

- A) During the first 5 minutes
- B) 5 minutes to 10 minutes
- C) 10 minutes to 20 minutes
- D) 15 minutes to 20 minutes

The graph below represents the total number of times a teenager watches a cartoon episode over a 5 - day period.

Cartoons Watched



9. What is the slope of this line segment? Include the appropriate units in your answer.

- A) $\frac{30}{1}$ Cartoon episodes per Day
- B) $\frac{6}{5}$ Cartoon episodes per Day
- C) $\frac{5}{1}$ Cartoon episodes per Day
- D) $\frac{6}{1}$ Cartoon episodes per Day

10. Write an equation that represents the total number of cartoon episodes, C , watched after, d , days.

- A) $C = 6d$ B) $C = 5d$
C) $C = 30d$ D) $C = \frac{6}{5}d$

11. If this trend continues, how many cartoon episodes will be watched in 8 days?

- A) 40 cartoon episodes
B) 24 cartoon episodes
C) 48 cartoon episodes
D) 30 cartoon episodes

Find the slope of the line through each pair of ordered pairs.

12. $(9, 18), (4, -8)$

- A) $\frac{26}{5}$ B) $-\frac{26}{5}$
C) $\frac{5}{26}$ D) $-\frac{5}{26}$

Write the slope-intercept form of the equation of the line through the given point with the given slope.

13. through: $(4, -5)$, slope $= -1$

- A) $y = x - 1$ B) $y = 3x - 1$
C) $y = -x - 1$ D) $y = -3x - 1$

Write the slope-intercept form of the equation of the line through the given points.

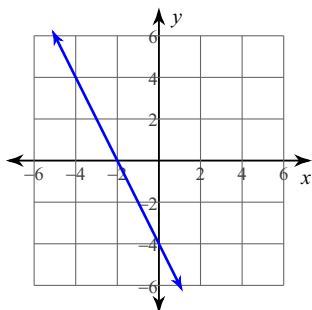
14. through: $(-5, 3)$ and $(0, 5)$

- A) $y = \frac{2}{5}x - 5$ B) $y = 5x + \frac{2}{5}$
C) $y = \frac{2}{5}x + 5$ D) $y = -5x + \frac{2}{5}$

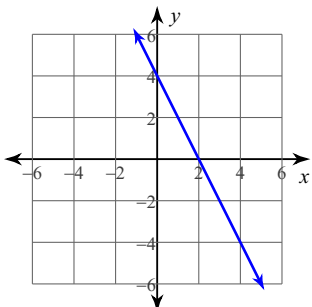
Sketch the graph of each line.

15. $y = -2x - 4$

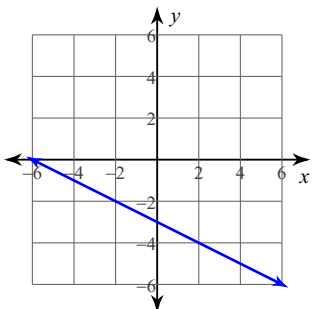
A)



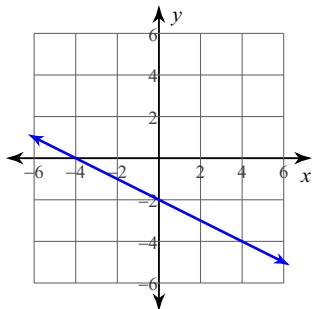
B)



C)

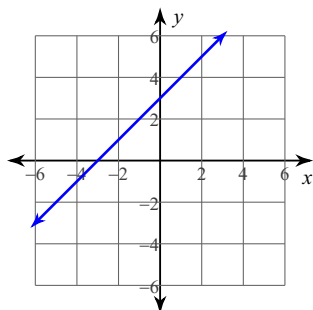


D)

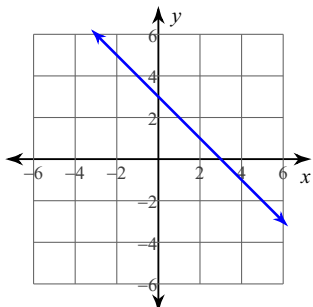


16. $x - y = -3$

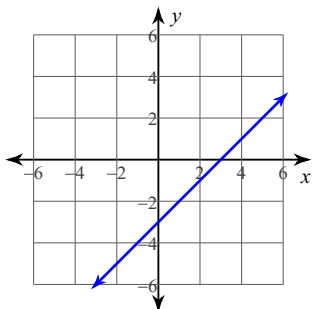
A)



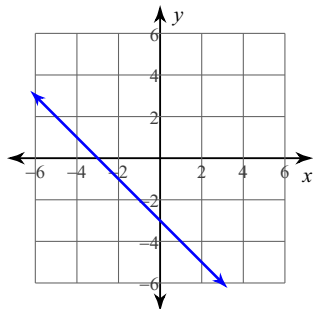
B)



C)



D)



Find the slope, x-intercept, and y-intercept of the following.

17. $5x - 2y = 4$

A) $m = -\frac{5}{2}$, $x = -\frac{4}{5}$, $y = -2$

B) $m = \frac{5}{2}$, $x = -\frac{4}{5}$, $y = 2$

C) $m = \frac{2}{5}$, $x = \frac{5}{4}$, $y = 2$

D) $m = \frac{5}{2}$, $x = \frac{4}{5}$, $y = -2$

Name the x and y-intercepts

18. $y = 3$

A) $x = 3$, $y = \text{none}$

B) $x = 3$, $y = -3$

C) $x = \text{none}$, $y = -3$

D) $x = \text{none}$, $y = 3$

Determine the y-intercept of the graph of each equation.

19. $4 = 4y + 3x$

A) $y = 1$

B) $y = -1$

C) $y = -\frac{3}{4}$

D) $y = 4$

20. Edward spent \$75 on 5 movie tickets.
- A. Write an inequality that can be used to determine the maximum number of movie tickets that Edward can buy with \$40.
- B. What is the maximum number of movie tickets that Edward can buy with \$40?
- A) $75 \geq 15x$, 5 movie tickets
B) $40 \geq 15x$, 2 movie tickets
C) $40 \geq 10x$, 4 movie tickets
D) $40 \geq 15x$, 3 movie tickets

21. Patsy rented a car. It cost \$75 plus an hourly rate. It cost Patsy \$195 to rent the car for 24 hours.
- A. Write an inequality to find the maximum number of hours that Patsy can rent the car for if she has \$250 to spend.
- B. What is the maximum number of hours that Patsy can rent the car for if she has \$250 to spend?
- A) $250 \geq 24x + 75$, 7 hours
B) $195 \geq 5x + 75$, 24 hours
C) $250 \geq 5x + 75$, 35 hours
D) $250 \geq 5x - 75$, 65 hours