

Intro to Graphs & Functions Study Guide (Chapter 3)

Determine whether the ordered pair is a solution of the given equation.

- 1) $(8, 3)$ for $y = x - 6$ 2) $(-3, 7)$ for $y = 2x + 13$ 3) $(27, 0)$ for $y + 3x = 81$

Give the coordinates and quadrant/part of the coordinate plane for each point.

4) A: _____; _____

5) B: _____; _____

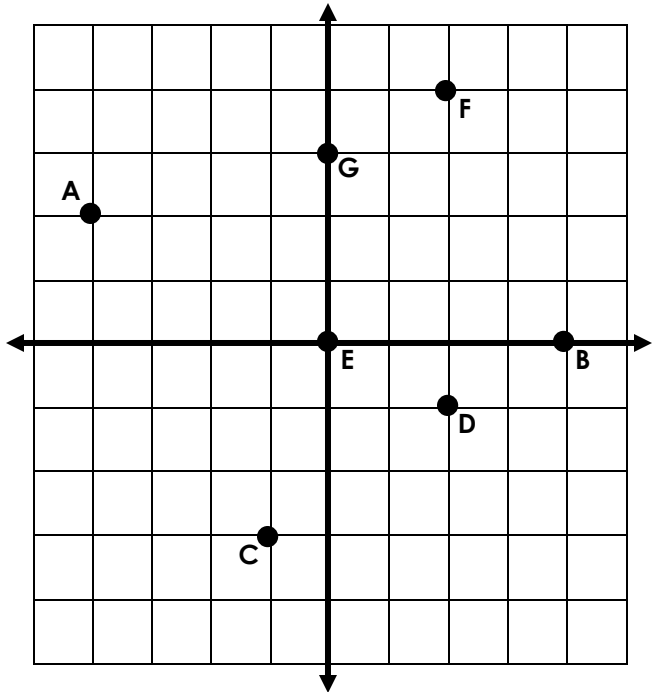
6) C: _____; _____

7) D: _____; _____

8) E: _____; _____

9) F: _____; _____

10) G: _____; _____

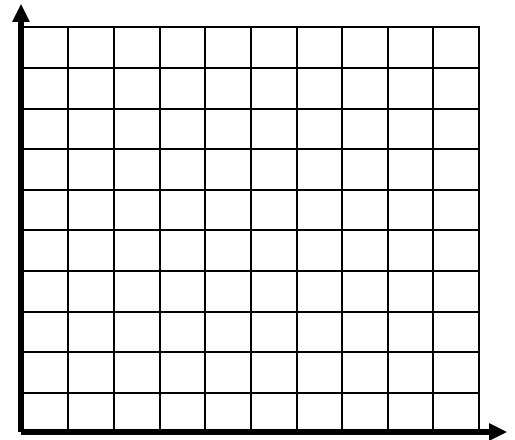


- 11) When dining out, it is customary to give a tip to the server. The amount of the tip is generally 15 to 20 percent of the total bill. The equation for the cost "c" of a meal, including a 15 percent tip, is $c = 1.15a$, where "a" is the total amount shown on the bill. Find the total cost of a meal when $a = \$35.20$ to the nearest cent.

12) The life expectancy of Americans has been rising steadily since 1940 and can be approximated by the equation $L = 0.2n - 323$, where "L" is the life expectancy and "n" is the year of birth. Find the approximate life expectancy for an American born in 2020.

13) Use the table to graph the costs of various numbers of tickets to an amusement park. Don't forget labels for your axes!

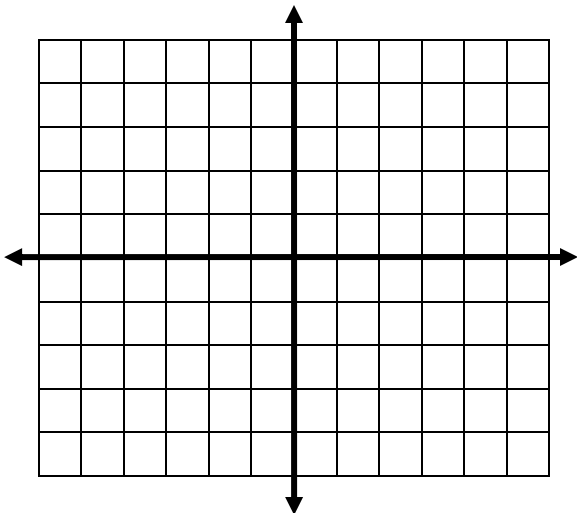
Tickets	1	2	5	10	20
Cost (\$)	20	36	85	160	300



Make a table and a graph of each function.

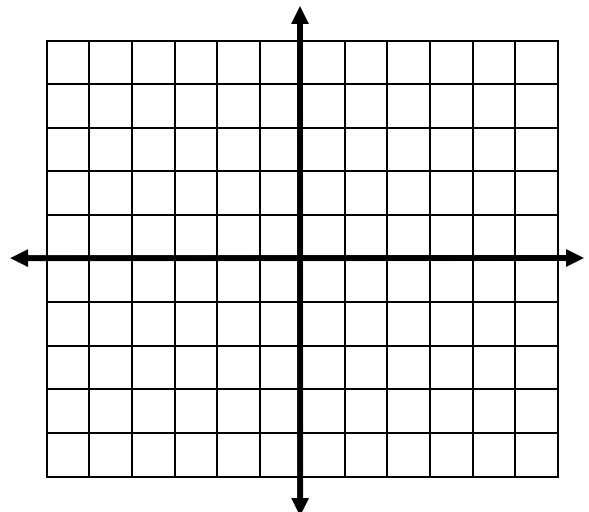
14) $y = 4x + 2$

x	$4x + 2$	y
-2		
-1		
0		
1		
2		



15) $y = -x + 7$

x	$-x + 7$	y
-2		
-1		
0		
1		
2		



Name _____ Class _____

Use each table to find the pattern between the x- and y-values and then to write an equation.

16)

x	2	4	6	8
y	13	15	17	19

Pattern between x and y: _____

Equation: _____

17)

x	1	2	3	4	5
y	8	16	24	32	40

Pattern between x and y: _____

Equation: _____

Create each of the following:

18) A graph that IS a function.

19) A graph that is NOT a function.

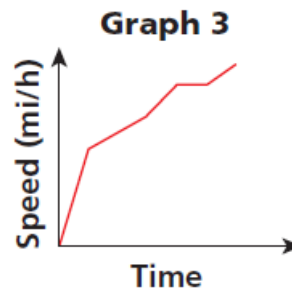
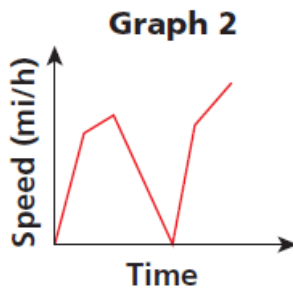
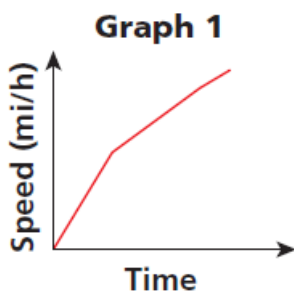
20) A mapping diagram that IS a function.

21) A mapping diagram that is NOT a function.

22) A table that IS a function.

23) A table that is NOT a function.

Tell which graph corresponds to each situation below.



- 24) _____ Jordan gets off to a good start and continues through the course picking up speed.
- 25) _____ Ethan gets off to a good start and picks up speed. Toward the end of the race, he nearly falls and his speed stops increasing. He rights himself and finishes the race, reaching his greatest speed.
- 26) _____ Xavier gets off to a good start but falls around the middle of the race. He gets up and finishes the race, gaining speed through the finish line.