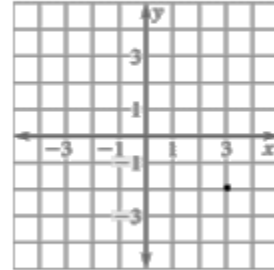


1.6/1.7/4.1-4.4 Quiz Study Guide

4.1: Plot Points in the Coordinate Plane

- Identify/graph ordered pairs
- Identify the 4 quadrants

Ex: Write the coordinates of point graphed and identify the quadrant it lies in.



4.2: Graph Linear Equations

- Be able to graph an equation using a table (choose appropriate values for x)

Ex: Graph $2x - 4y = 8$

- Be able to identify domain and range of a function

Ex: You are transferring photos from your digital camera to a CD. Each photo on the camera takes up 2 megabytes of space. The number p photos that will fit onto a CD is given by the function $s = 2p$ where s is the amount of space on the CD. One CD can store up to 700 megabytes of data. Identify the domain and range of the function.

4.3: Graph Linear Functions Using x and y intercepts

- Find x and y intercepts from an equation
- Identify x and y intercepts from a graph
- Interpret the meaning of x and y intercepts as they apply to real-world problems

Ex: Find the x and y intercepts of the equation $0.2y - 0.3x = 0.6$

Ex: Graph $4x - 2y = -16$ using intercepts.

Ex: You earn \$20 an hour mowing lawns and \$10 an hour washing windows. You want to make \$500 in one week.

- Write an equation to represent the situation
- Graph the equation using x and y intercepts.
- What do the intercepts mean in this situation?
- What are three possible numbers of hours you can work at each job?
- If you work 30 hours washing windows, how many hours do you have to work mowing lawns?

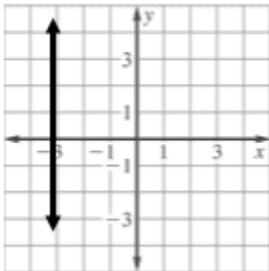
4.4: Slope and Rate of Change

- Find slope of a line that passes through two points
- Find slope of a line that is graphed
- Identify zero slope and undefined slope
- Find rate of change

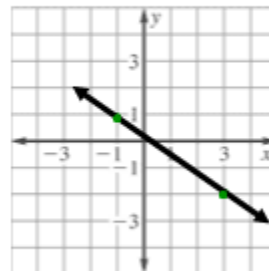
Ex: Find the slope of the line that passes through the points $(6, -4)$, $(-5, -8)$

Ex: Find the slope of the line that passes through the points $(-5, 5)$, $(2, 5)$

Ex: Find the slope of the line



Ex: Find the slope of the line



Ex: The table shows the amount of water evaporating from a swimming pool on a hot day. Find the rate of change in gallons with respect to time.

| | | | |
|---------------------------|-----|------|----|
| Time (hours) | 2 | 6 | 12 |
| Gallons evaporated | 4.5 | 13.5 | 27 |

1.6: Functions as Rules and Tables

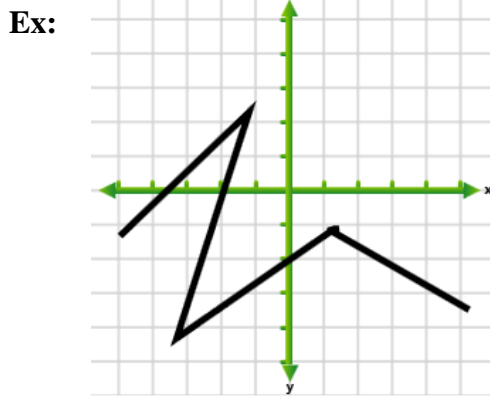
- Be able to identify an input output relationship as a function or not and explain why.

Ex:

| x | y |
|-----|-----|
| 3 | 1 |
| 2 | 1 |
| 1 | 1 |
| 0 | 1 |

Ex:

| | | | | |
|-----|---|---|---|----|
| x | 5 | 7 | 5 | 14 |
| y | 2 | 6 | 9 | 11 |



- Be able to write a rule for a function given a table or graph.

Ex:

| x | y |
|-----|-----|
| -10 | 7 |
| -5 | 5 |
| 0 | 3 |
| 5 | 1 |
| 10 | -1 |