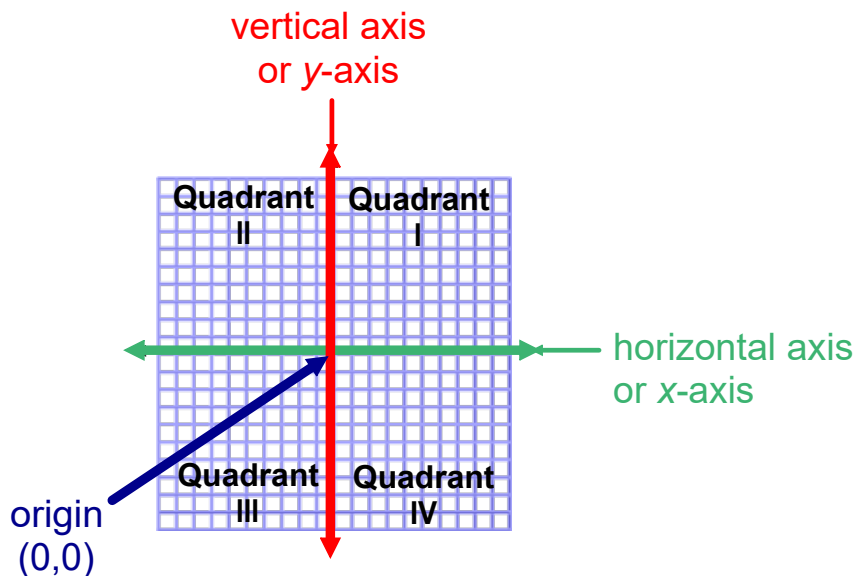
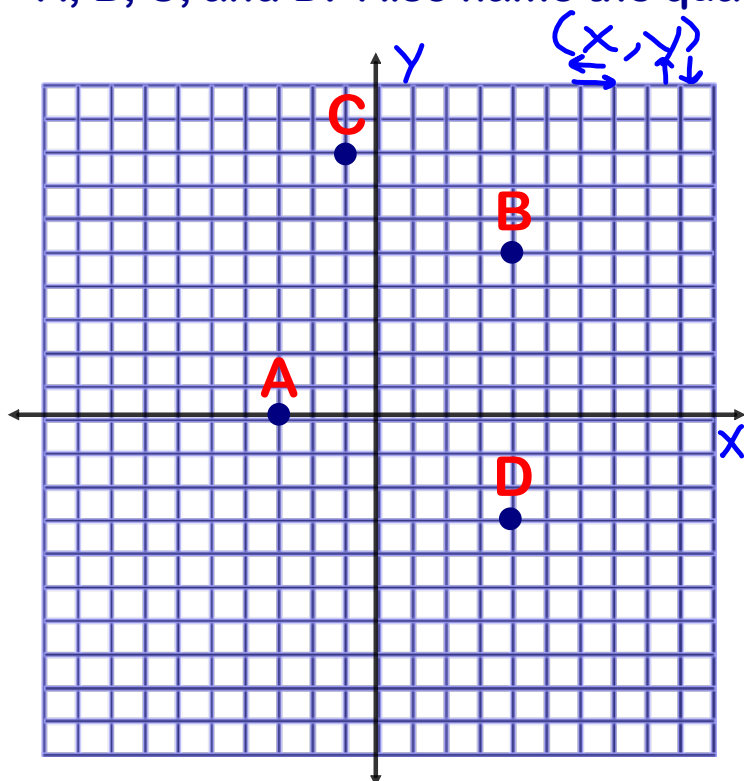


## 3.1 ORDERED PAIRS AND RELATIONS



Points are written in ordered pairs.  
The first number is the x-coordinate, and the second number is the y-coordinate.

Write the ordered pairs that correspond to points A, B, C, and D. Also name the quadrant the point is in.



1. A  $(-3, 0)$   
x-axis
2. B  $(4, 5)$   
Q I
3. C  $(-1, 8)$   
Q II
4. D  $(4, -3)$   
Q IV

Plot the following points in a coordinate plane.  
Also name the quadrant the point is in.

5. E (-2, 5)

left up

Q II

6. F (3, 7)

right up

Q I

7. G (-1, -3)

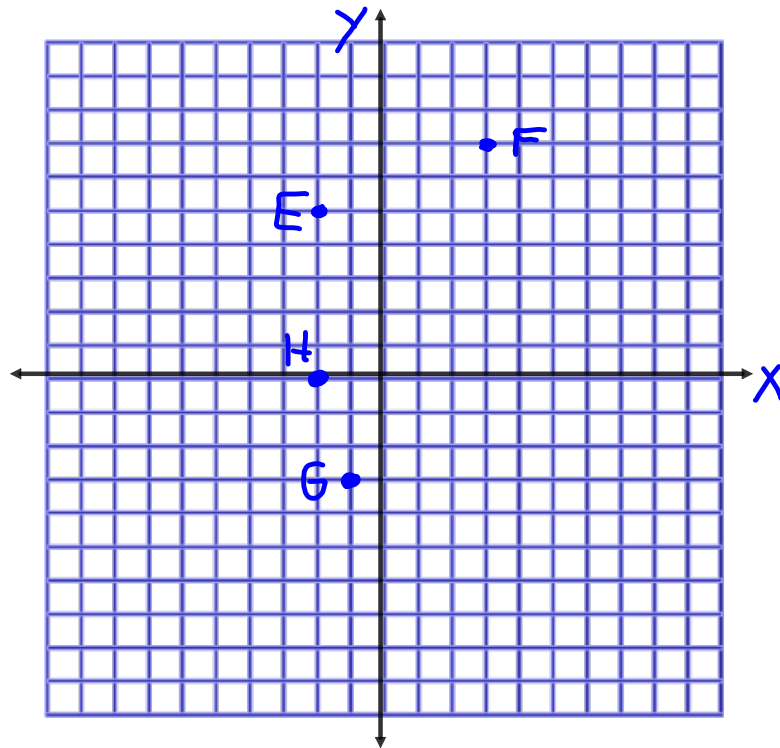
left down

Q III

8. H (-2, 0)

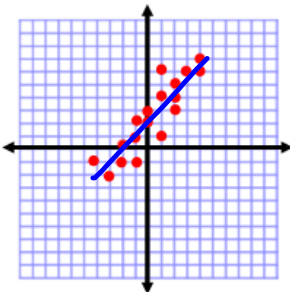
left stay

x-axis



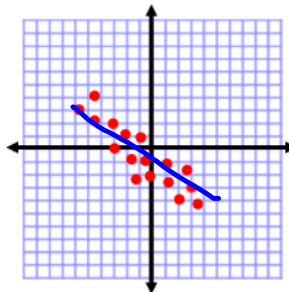
## SCATTER PLOTS

Positive  
Correlation



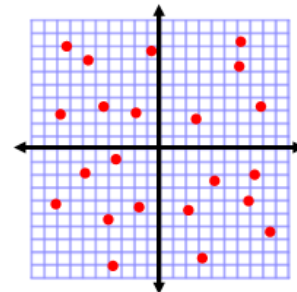
x increases  
y increases

Negative  
Correlation



x increases  
y decreases

No  
Correlation



no relationship  
is apparent

**State the type of correlation each of the following would have if put into a scatter plot.**

9. Age of car and resale value *negative*  
 ↑ ↓
10. Number of pets in household and number of fleas *positive*  
 ↑ ↑
11. Height and life expectancy *no correlation*  
 ↑ ?
12. Annual income and size of home *positive*  
 ↑ ↑
13. Hours of TV watched and grades *negative*  
 ↑ ↓
14. Weight and annual income *no correlation*  
 ↑ ?
15. Age and number of health problems *positive*  
 ↑ ↑
16. Hours of exercise per day and weight *negative*  
 ↑ Cardio ↓

## CHAPTER 1 REVIEW...

**Relation**- a set of ordered pairs

$$\{(-2, 5), (0, 7), (3, 5)\}$$

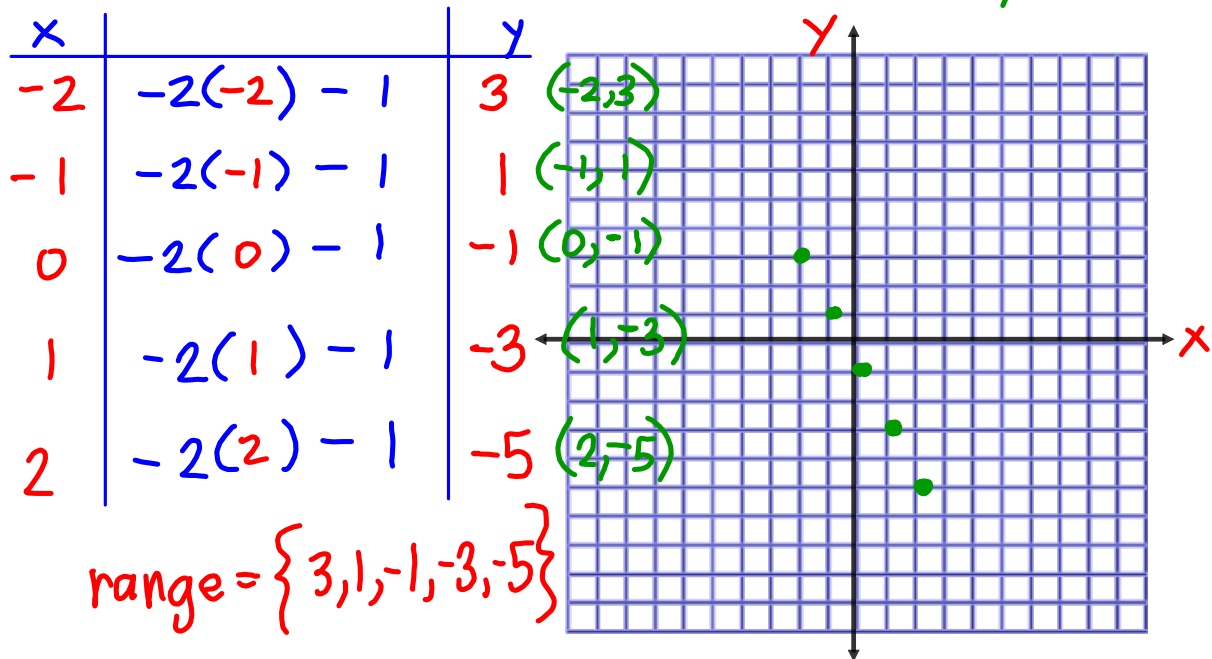
**Domain**- the set of all possible values of the first variable (also called the input) *x-values*

$$\{-2, 0, 3\}$$

**Range**- the set of all possible values of the second variable (also called the output) *y-values*

$$\{5, 7\}$$

17. Graph the function  $y = -2x - 1$  with domain  $\{-2, -1, 0, 1, 2\}$ . Then identify the range.



18. Graph the function  $y = \frac{5}{4}x + 2$  with domain  $\{-2, -1, 0, 1, 2\}$ . Then identify the range.

