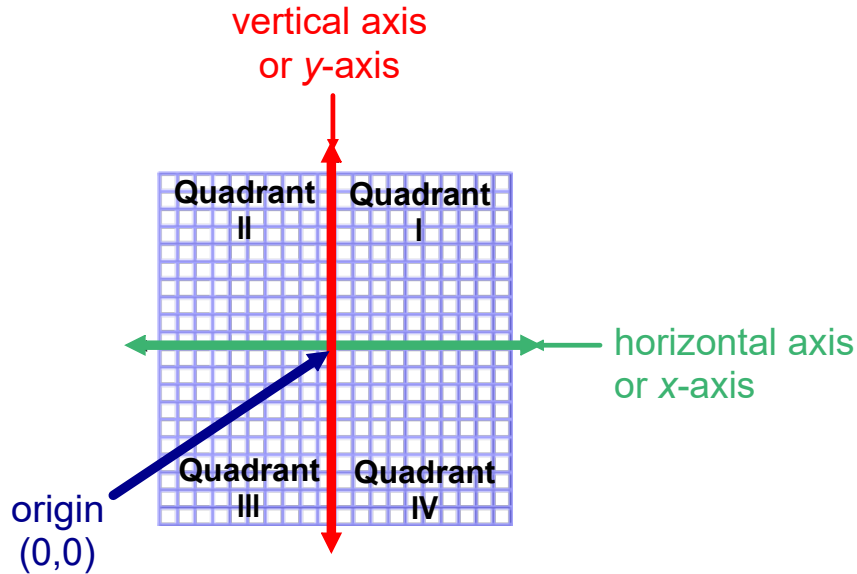
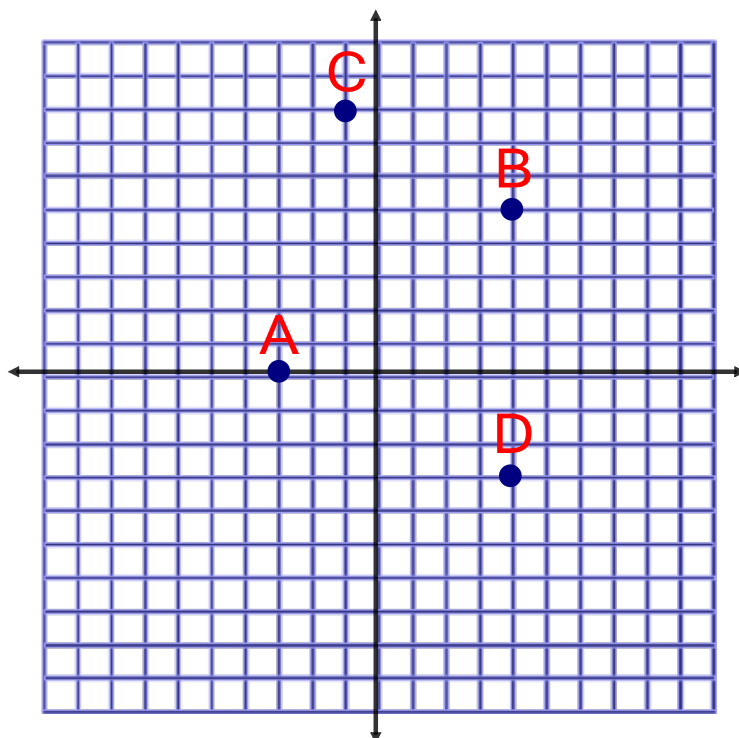


3.1 ORDERED PAIRS AND RELATIONS



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)

QII

6. F (3, 7)

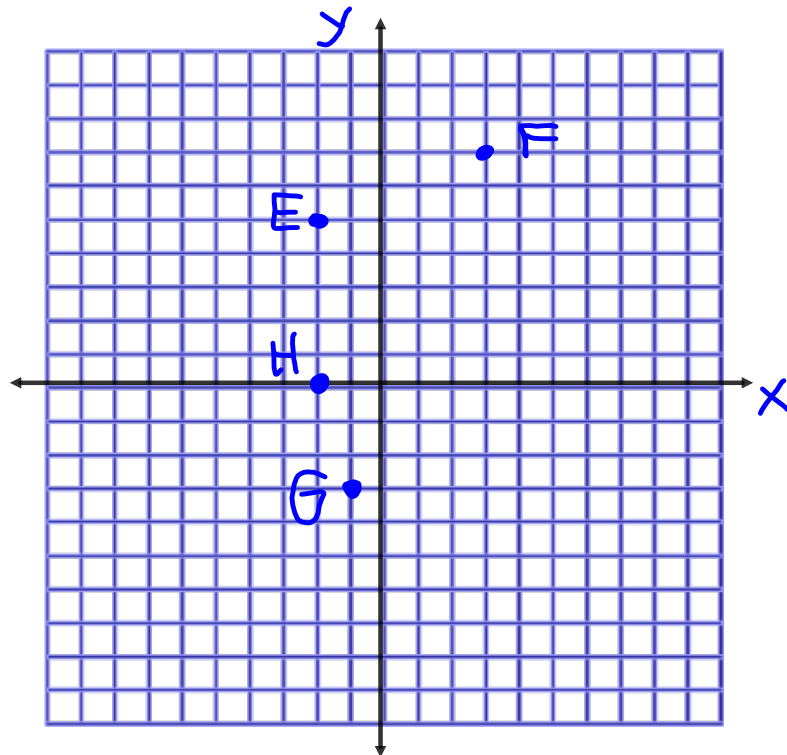
QI

7. G (-1, -3)

QIII

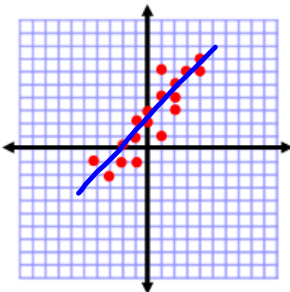
8. H (-2, 0)

x-axis



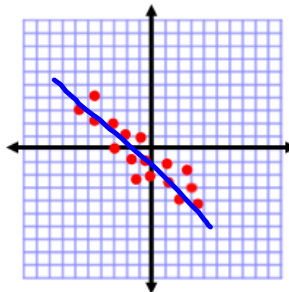
SCATTER PLOTS

Positive
Correlation



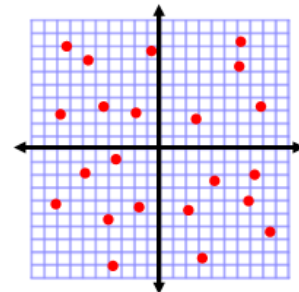
x increases
y increases

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*
 ↑ ↓

CHAPTER 1 REVIEW...

Relation- a set of ordered pairs

$$\{(-8, 5), (3, 0), (4, -1), (6, 0)\}$$

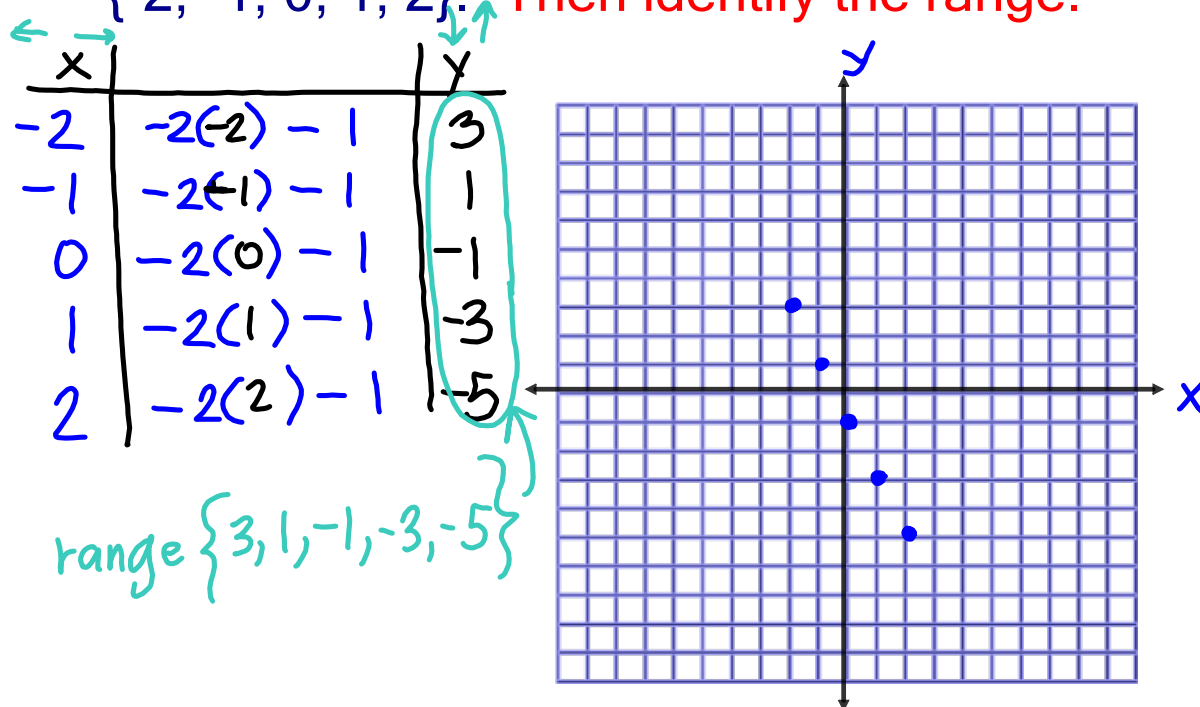
Domain- the set of all possible values of the first variable (also called the input) *x-values*

$$\{-8, 3, 4, 6\}$$

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

$$\{5, 0, -1\} \quad \text{y-values}$$

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.

