INTERMEDIATE ALGEBRA

GPS #5 **1.5 INTRODUCTION TO GRAPHING** **NAME:** Parul Patel

Useful Terminologies:

* Relation: A set of ordered pairs. [Example: $S = \{(-1,3),(2,4),(3,-2),(4,5)\}$]
* Domain: In a relation consisting of ordered pairs (x,y), the set of x-values is the domain.
* Range: In a relation consisting of ordered pairs (x,y), the set of y-values is the range.

1. Identify the domain and range of the following:

a) $S_1 = \{(0,4),(3,9),(6,-2),(4,5)\}$

$D = \{0, 3, 6, 4\}$

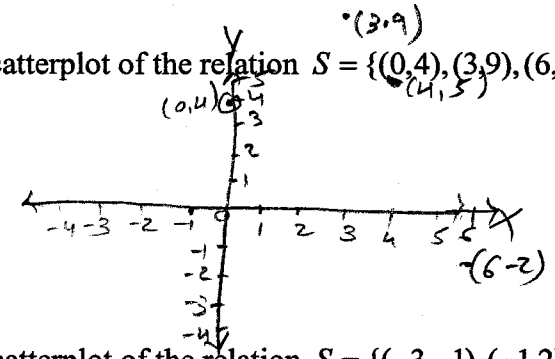
$R = \{4, 9, -2, 5\}$

b) $S_2 = \{(-1,2),(1,3),(5,-1),(9,2)\}$ Same members Don't count

$D = \{-1, 1, 5, 9\}$

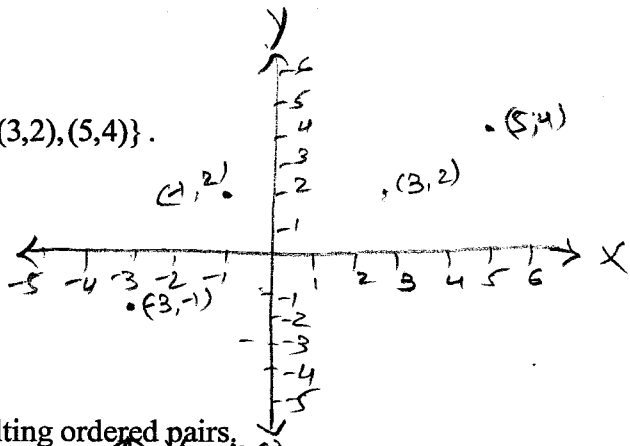
$R = \{2, 3, -1\}$

2. a) Make a scatterplot of the relation $S = \{(0,4),(3,9),(6,-2),(4,5)\}$. Label your point always



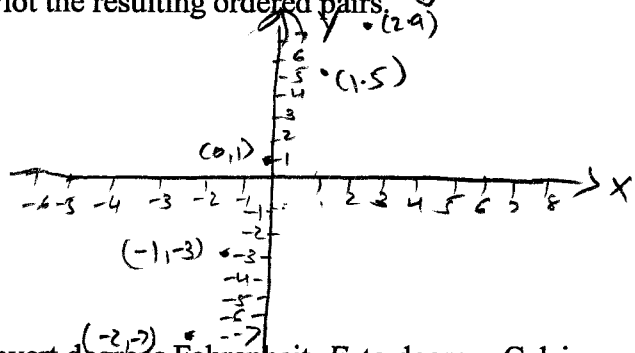
b) Make a scatterplot of the relation $S = \{(-3,-1),(-1,2),(3,2),(5,4)\}$.

Scatter Plot



3. Evaluate $y = 4x + 1$ for $x = -2, -1, 0, 1$ and 2. Plot the resulting ordered pairs.

x	y	(x,y)
-2	-7	(-2,-7)
-1	-3	(-1,-3)
0	1	(0,1)
1	5	(1,5)
2	9	(2,9)



4. The formula $C = \frac{5}{9}(F - 32)$ can be used to convert degrees Fahrenheit, F, to degrees Celsius, C. If the outside temperature is $14^\circ F$, find the equivalent temperature in Celsius.

$$C = \frac{5}{9}(F - 32)$$

$$= \frac{5}{9}(14 - 32)$$

$$= \frac{5}{9}(-18^{2})$$

$$C = -10^\circ$$