Date:		



**DO NOW:** Plot and LABEL the following points on the Cartesian plane and label them accordingly.

What do you notice about the points that you plotted in questions 1 and 2?

Name\_ UNIT 3 Date\_\_\_\_\_ LESSON 1

## **AIM: GRAPHING HORIZONTAL & VERTICAL LINES**

Graph these equations:







## LINES

Contains only the variable x

General Equation: \_\_\_\_\_

Trick: The top of the X looks like a

" \_\_\_\_" for vertical!

Parallel to the \_\_\_\_\_

Practice: State what kind of line each equation (or line) represents (vertical, horizontal, or neither). You can just write "V, H, or N" on the white board!



7. Graph and label the following equations on the same set of axes:



Let's find the **AREA** of the region bounded by the lines.

Let's find the **PERIMETER** of the region bounded by the lines.

10 8 a) Draw the graph of a line that crosses the x – axis at 5 and is parallel to the y - axis. What is the equation of 6 4 2 -10 -8 -6 -4 -2 Э. 4 б\_ 8 10 2 4 6 8 -10} 10 8 6 4 2 -10 -8 -6 -4 -2 8 10 2. 6 4 2 4 6 8 40 10 8 6 4 2 -10 -8 -6 -4 -2 2 6 8 10 4. 2 4 6

8

10 |

b) What is the equation of the y – axis?

Partner Practice:

this line?

9.

a) Draw the graph of a line that crosses the y-axis at -4 and is parallel to the x - axis. What is the equation of this line?

b) What is the equation of the x – axis?

10. Find the **AREA** and **PERIMETER** of the region bounded by the following equations of the lines:

- a) y = 4
- b) y = -3
- c) x = 5
- d) x = -2



## Name\_ UNIT 3





## Use the accompanying graph for #1 and #2.

- 1. Draw the graph of a line that crosses the y-axis at 6 and is parallel to the x axis. What is the equation of this line?
- 2. Draw the graph of a line that crosses the x axis at 5 and is parallel to the y axis. What is the equation of this line?
- 10 8 6 4 2 -10 -8 -6 -4 -2 8 Э. 6 1101 4 2 4 6 8 10
- 3. Graph on the same grid x = 4, x = -2, y = 3 and y = -1



Using the graph above to answer the following questions.

a. Determine the perimeter of the region.

b. Determine the area of the region.

- 4. Simplify the following expressions:
- a.  $(2x + 5)^2$

b.  $(-3xy^4)^2$ 

5. In June 2012, taco Bell's Doritos Locos Tacos sold more than 100 million within the first ten weeks that it was sold. It was said this this product is the fastest and most popular product sold in the fast food industry! To help better understand the relationship of horizontal graphs, we can represent the relationship between the cost of the product to the consumer and the number sold. Take a look at the graph below.





a. What is the relationship between the number of tacos sold and the cost of the taco?

b. What could be an equation of this graph?