Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Chapter 2, Section 1 Notes**

***Graphing Linear Equations***

**Today’s Learning Goal:** *At the end of today’s lesson, you should be able to graph a linear equation using a table of values and graph horizontal and vertical lines.*

A **linear equation** is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The points on the line are the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of the equation.

**Graphing a Linear Equation:**

 Step 1: Make a table of values.

 Step 2: Plot the ordered pairs from the table of values.

 Step 3: Draw a line through the points.

Example: **Graph y = -2x + 1**

|  |  |  |  |
| --- | --- | --- | --- |
| **X** | **Y = -2X + 1** | **Y**  | **(X , Y)** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |



You Try: **Graph y = -1/2 x + 2**

|  |  |  |  |
| --- | --- | --- | --- |
| **X** | **Y = -1/2x + 2** | **Y**  | **(X , Y)** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |



You Try: **Graph y = 2x - 3**

|  |  |  |  |
| --- | --- | --- | --- |
| **X** | **Y = 2x - 3** | **Y**  | **(X , Y)** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |



**Horizontal and Vertical Lines:**

The graph of y = b is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ passing through

 (0, b).



The graph of x = a is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ passing through (a, 0).



More Examples:

**Graph y = -3 Graph x = 2**

 

**Progress Monitoring:** *How do you feel about your level of understanding of graphing linear equations using a table of values?* (Rate yourself from 0 (don’t understand at all) to 10 (doing awesome))

 