Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_\_ Period: \_\_\_\_\_\_\_ Date: \_\_\_\_\_\_

**4.1A Graphing Horizontal and Vertical Lines\_Classwork**

*Objective: Graph linear equations using a table. Understand that lines represent solutions of linear equations (CCSS: 8.EE.5)*

*HW: 4.1A worksheet\_#1-14 ALL*

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| \*\*The equation x = 5 is a **vertical line**. The equation means that the line goes through the x-axis at 5; a vertical line would go through the x-axis, not a horizontal line.\*\*The equation y = 2 is a **horizontal line**. The equation means that the line goes through the y-axis at 2.Notice in horizontal and vertical line equations there is only one letter. If you ever see an equation of a line with only one variable, you know right away that it is either vertical or horizontal line.SLOPEThe slope of all **horizontal lines** is 0. The reason for this is that horizontal lines would have 0 in the numerator, which is always 0. The slope of all **vertical lines** is undefined.The reason for this is that vertical lines have 0 in the denominator, which is always undefined.  |

***PART 1: Graph each linear function.***

1. x = 3 2. y = -1 3. y = 6

4. x = -2 5. y = -4 6. x = 0

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***PART 2: Write the slope-intercept form (y=mx+b) of the equation of each line.***

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| EXAMPLE$$m=\frac{-6}{4}=-\frac{3}{2}$$$$b=4$$Linear equation: $y=-\frac{3}{2}x+4$ | 1.  | 2. |

***PART 3: Graph each linear function. Pick any values for x.***

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| 1. $y= -x+2$

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| 1. $y= -\frac{1}{2}x+1$

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