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

**4.5A Graphing Using Intercepts\_Classwork**

*Objective: graph linear equations written in standard form. Applying Standard 8.EE.6*

*HW: 4.5A HW (handout)*

**Ax + By = C** (A, B, C are fixed integer values) – this form is called **STANDARD FORM**

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| 1. You sold a total of $16 worth of tickets to a school concert. You lost track of how many of each type  you sold. Let x represent the number of adult tickets. Let y represent the number of student  tickets. Adult tickets cost $4 and student tickets cost $2. Write an equation that relates x and y. | |
| 2. Make a graph using the two points  (7, 0) and (0, -3) | 3. Make a graph using the two points:  (-4, 0) and (0, 5) |

Record the ordered pairs for the x- and y-intercepts of the graphs below.

|  |  |
| --- | --- |
| 4. x-intercept = \_\_\_\_\_\_\_\_\_  y-intercept = \_\_\_\_\_\_\_\_\_ | 5. x-intercept = \_\_\_\_\_\_\_\_\_  y-intercept = \_\_\_\_\_\_\_\_\_ |

What do you notice about the coordinates of the x-intercepts? \_\_\_\_\_\_\_\_\_\_

What do you notice about the coordinates of the y-intercepts? \_\_\_\_\_\_\_\_\_\_

* **y =mx + b** 🡪 use the slope and y-intercept in order to graph the linear function
* **Ax + By = C** 🡪 use the x-intercept and y-intercept in order to graph the linear function

|  |  |
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| EXAMPLE: Graph using intercepts  2x + 3y = 12 |  |

Graph using intercepts

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| 6. –x + 3y = 6 |  |
| 7. 8x – 2y = 16 |  |

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| **\*\*\*\*\*\*\*WARM UP\*\*\*\*\*\*\*\*\*\*\*\***   |  |  | | --- | --- | | 1. Is (-2, 6) a solution to the graph of the linear equation 3x + 2y = 6? | 1. Is (3, -1) a solution to the graph of the linear equation 3x + 2y = 6? | |