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

**4.4A Graphing Linear Equations in Slope Intercept Form\_Classwork**

*Objective: Analyze graphs to determine slope, y-intercept and equation of the line. CCSS: 8.EE.6*

HW: (4.4A) p. 170 #4 – 15 (Solutions on p. A22)

*Graph each equation. Find the slope and the point where each line crosses the y-axis*

*(y-intercept) 🡪 y = mx + b*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. $y=-5+2x$

Slope: \_\_\_\_\_\_\_\_\_\_y-intercept: \_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| **x** |  | **y** |
| **0** |  |   |

 | 1. $y-5=-2x$

Slope: \_\_\_\_\_\_\_\_\_\_y-intercept: \_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| **x** |  | **y** |
| **0** |  |   |

 |
| 1. $x+2y=4$

Slope: \_\_\_\_\_\_\_\_\_\_y-intercept: \_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| **x** |  | **y** |
| **0** |  |   |

 | 1. $y+7=\frac{x}{2}$

Slope: \_\_\_\_\_\_\_\_\_\_y-intercept: \_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| **x** |  | **y** |
| **0** |  |   |

 |

**4.4A Notes (Slope Intercept Form: y = mx + b)**

\*\*\* Start with “Lesson Launch” on back \*\*\*

|  |
| --- |
| SLOPE INTERCEPT FORMY = *m* x + ***b*** |

Identify the slope (m) and y-intercept (b) of each graph. Then write the equation of the line (y=mx+b)

|  |  |  |
| --- | --- | --- |
| 1.slope \_\_\_\_\_\_\_\_\_\_y-intercept \_\_\_\_\_\_equation \_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 2.slope \_\_\_\_\_\_\_\_\_\_y-intercept \_\_\_\_\_\_equation \_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 3.slope \_\_\_\_\_\_\_\_\_\_y-intercept \_\_\_\_\_\_equation \_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 4.slope \_\_\_\_\_\_\_\_\_\_y-intercept \_\_\_\_\_\_equation \_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 5.slope \_\_\_\_\_\_\_\_\_\_y-intercept \_\_\_\_\_\_equation \_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 6. Write the equation of the line whose graph has a slope of  -3 and y-intercept of 4. |

DIRECTION: for each problem, rewrite it in slope-intercept form.

|  |  |
| --- | --- |
| $$y=4-3x$$ | $$y-4=\frac{3}{4}x$$ |
| $$2\left(x+y\right)=4$$ | $$2x+4y=8$$ |
| $$4+4y=2x$$ | $$y=-4+5x$$ |
| $$y+5=2x$$ | $$3\left(2x-y\right)=9$$ |

DIRECTION: for each problem, rewrite it in slope-intercept form.

|  |  |
| --- | --- |
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Follow Up Questions to 4.4A Notes

* What do you notice about the slope of the line and its equation? Can you identify the slope of the line without graphing? Explain.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* What is the value of x at the y-intercept? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* What do you notice between the point of intersection with the y-axis (y-intercept) and its equation? Can you identify the y-intercept of the line without graphing? Explain.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



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