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

**Guided Notes: Parallel, Perpendicular, or Neither?**

****



**Objective #1: I can determine if a set of equations is parallel, perpendicular, or neither.**

*I DO 1A: One line passes through the points (–1, –2) and (1, 2); another line passes through the points (–2, 0) and (0, 4). Are these lines parallel, perpendicular, or neither?*

|  |  |  |
| --- | --- | --- |
| Find the slopes | Compare | Solution |
|  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Find the slopes | Compare | Solution | Got it? |
|  |  |  |  |

 *WE DO 1A: One line passes through the points (0, –4) and (–1, –7); another line passes through the points (3, 0) and (–3, 2). Are these lines parallel, perpendicular, or neither?*

*I DO 1B: Tell whether the lines for the pair of equations are parallel, perpendicular, or neither*

*y = –2/3x + 1 2x – 3y = –3*

*Are these lines parallel, perpendicular, or neither?*

|  |  |  |
| --- | --- | --- |
| Find the slopes | Compare | Solution |
|  |  |  |

*WE DO 1B: Tell whether the lines for the pair of equations are parallel, perpendicular, or neither.*

*y= -7/8x - 1  32x-28y=-36*

|  |  |  |  |
| --- | --- | --- | --- |
| Find the slopes | Compare | Solution | Got it? |
|  |  |  |  |

*Are these lines parallel, perpendicular, or neither?*

**Objective #2: I can determine if lines graphed are parallel, perpendicular, or neither.**

*I DO 2: Tell whether the lines for the pair of equations are parallel, perpendicular, or neither.*

**

|  |  |
| --- | --- |
| *Take a guess* |  |
| *Count the slopes* |  |
| *Compare* |  |
| *Solution* |  |

|  |  |
| --- | --- |
| *Take a guess* |  |
| *Count the slopes* |  |
| *Compare* |  |
| *Solution* |  |
| *Got it?* |  |

*WE DO 2: Tell whether the lines for the pair of equations are parallel, perpendicular, or neither.*

**

**Objective #3: I can write parallel and perpendicular lines for a given equation.**

*I DO 3: What's the equation of the line perpendicular to y = 3x - 3 and passes through the point (-8, -2)?*

|  |  |
| --- | --- |
| *Original Slope* |  |
| *What slope do you need?* | *Needed slope:\_\_\_\_\_* |
| *Substitute point and need slope in.* |  |
| *Equation* |  |

*WE DO 3: What's the equation of the line parallel to 2x – 3y = 9 and passes through the point (4, –1)?*

|  |  |
| --- | --- |
| *Original Slope* |  |
| *What slope do you need?* | *Needed slope:\_\_\_\_\_* |
| *Substitute point and need slope in.* |  |
| *Equation* |  |
| *Got it?* |  |

*YOU DO:* ***DO YOUR WORK, numbered neatly, on a separate sheet of paper.***

Objective 1A: Write the slope of the line parallel and perpendicular to the line that goes through the 2 points.



Parallel slope:\_\_\_\_\_ Parallel slope:\_\_\_\_\_

Perpendicular slope:\_\_\_\_\_\_ Perpendicular slope:\_\_\_\_\_



Parallel slope:\_\_\_\_\_ Parallel slope:\_\_\_\_\_

Perpendicular slope:\_\_\_\_\_\_ Perpendicular slope:\_\_\_\_\_

Objective 1B: Tell whether the lines for the pair of equations are parallel, perpendicular, or neither.

5.) 6.) 3x + y = 8 and y = $\frac{1}{3} $x + 8

Objective 2: *Tell whether the lines for the pair of equations are parallel,*

*perpendicular, or neither.*

7.) 8.)

Objective 3:

9.)What is an equation of a line perpendicular to the line given by the equation ***2x – 5y = 3*** at the point ***(-1,1)***?

|  |  |
| --- | --- |
| *Original Slope* |  |
| *What slope do you need?* | *Needed slope:\_\_\_\_\_* |
| *Substitute point and need slope in.* |  |
| *Equation* |  |

10.) What is an equation of a line parallel to the line given by ***2x + 7y = 5***and containing the point ***(6, –2)***?

Number:\_\_\_\_\_\_Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_

**Exit Ticket: Parallel, Perpendicular, or Neither?**

**Objective 1A:** *One line passes through the points (3, -3) and (-3, -1); another line passes through the points (1, 2) and (-1, -4). Are these lines parallel, perpendicular, or neither?*

**Objective 1B:** *Tell whether the lines for the pair of equations are parallel, perpendicular, or neither .*

2y + 3x = 10

**Objective 2:** *Tell whether the lines for the pair of equations are parallel, perpendicular, or neither.*



**Objective 3:** What is an equation of a line parallel to the line given by

***9y – 2x = 36***and containing the point ***(-10, 12)***?