**GUIDED NOTES**

**DIRECTIONS:** Use each of the examples below to define each of the different **ROTATIONS.** Write any notes, comments, remarks below each of the graphs. Use a different color to draw the new line.

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| **Example 1** | | **Example 2** |
| Draw a line that is **PERPENDICULAR** to the line below.    **NOTES / COMMENTS / REMARKS**  *How many* ***PERPENDICULAR*** *lines can we create?* | | Draw a line that is **PARALLEL** to the line below.    **NOTES / COMMENTS / REMARKS**  *How many* ***PARALLEL*** *lines can we create?* |
| **Example 3** | | **Example 4** |
| Remember that **PERPENDICULAR LINES** have slopes that are \_\_\_\_\_\_\_\_\_\_\_.  Now given the line below, draw a line that is **PERPENDICULAR**.  [http://www.post-gazette.com/images4/2009mathquiz_Grade11Algebra.gif](http://www.google.com/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRxqFQoTCOjVxrTuo8cCFQJQPgodA1sAMg&url=http://lhfaulk801.blogspot.com/&ei=nmbLVeiOBYKg-QGDtoGQAw&psig=AFQjCNFoPXK7U6MD3sfgxadEAFfkda8-CQ&ust=1439479306964931)The slope of the given line is \_\_\_\_\_\_\_\_. | | Remember that **PARALLEL LINES** have slopes that are \_\_\_\_\_\_\_\_\_\_\_.  Now given the line below, draw a line that is **PARALLEL**.  The slope of the given line is \_\_\_\_\_\_\_\_.  [http://tdcms.ket.org/geometrypd/images/d3p2im4.jpg](http://www.google.com/url?sa=i&rct=j&q=&esrc=s&frm=1&source=images&cd=&cad=rja&uact=8&ved=0CAcQjRxqFQoTCJ_b6druo8cCFYs6Pgod_4QExg&url=http://lindsaygoggins.pbworks.com/w/page/65837727/Intro%20NCVPS%20Spring%20Unit%207&ei=7mbLVZ-sFYv1-AH_iZKwDA&psig=AFQjCNFoPXK7U6MD3sfgxadEAFfkda8-CQ&ust=1439479306964931) |
| **THE LINK: *Parallel and Perpendicular lines*** | | | |
| **VERBAL** | **NUMERIC** | | |
| **DIRECTIONS: Fill in the blanks.**  **PARALLEL lines have \_\_\_\_\_\_\_\_\_\_\_\_ slopes**  **PERPENDICULAR lines have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ slopes** | **DIRECTIONS: Circle the slope in the equations below, then write the PARALLEL and PERPENDICULAR slopes for each.**   |  |  |  | | --- | --- | --- | | **Equation** | **Slope Parallel** | **Slope Perpendicular** | |  |  |  | |  |  |  | |  |  |  | |  |  |  | | | |
| **GRAPH** | **COMMUNICATION** | | |
| **DIRECTIONS:** Graph a **PARALLEL LINE** and a **PERPENDICULAR LINE** through the point (2, -2). | **DIRECTIONS:** Answer the following questions   1. What is the **slope of the parallel line** you drew? 2. What is the **slope of the perpendicular** **line** you drew? 3. How do these two slopes compare to each other? | | |

**SUMMARY: *Write a note to yourself to remember the important facts about PARALLEL and PERPENDICULAR lines.***