Parallel and Perpendicular Lines Notes

Important Information

- **Parallel lines-** lines that never intersect (cross).
- The **slopes of parallel lines** are the same.
- **Perpendicular lines-** lines that intersect at a right angle.
- The **slopes of perpendicular lines** are opposite reciprocals (flipping the fraction).

Examples:

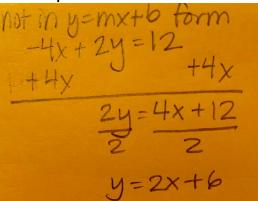
• Are the lines parallel, perpendicular, or neither?

y=-3x+7 and y=3x-2

y=5x+8 and y=-1/5x-4

y=6x+9 and y=6x+2

 If the equation is not in y=mx+b, you will need to put it into that form.



Things to remember!

 You can write the equation of a new line that is parallel or perpendicular to any line and goes through a specific point.

3x+4 thru Parallel m = 3

More Examples:

- Create your own equation and write it (in y=mx+b form or not).
- The pick a point.
- Do the calculations to find the equation of the line that will be parallel to your line that will go through your point.
- Do the calculations to find the equation of the line that will be perpendicular to your line that will go through your point.