

Name _____ Date _____

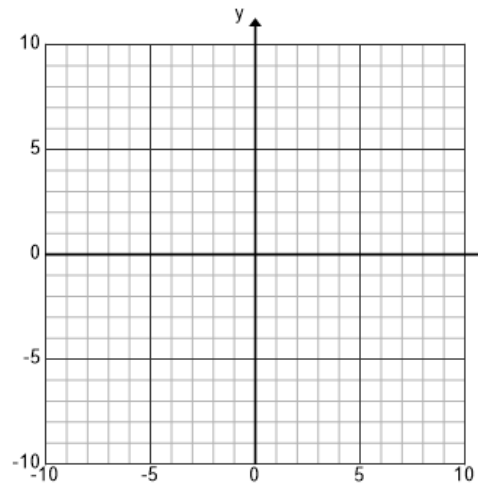
5-6 Practice

1. Write an equation of the line that passes through the point (6, 2) and is parallel to the line $y + 7 = -3(x + 6)$ in *point-slope form*.

2. Consider a line (LINE 1) that has a positive slope and passes through the point (-2,5). Now consider another line (LINE 2) that is perpendicular to LINE 1 and passes through (0, -4). What quadrants can LINE 2 pass through? What is the sign of LINE 2's slope?

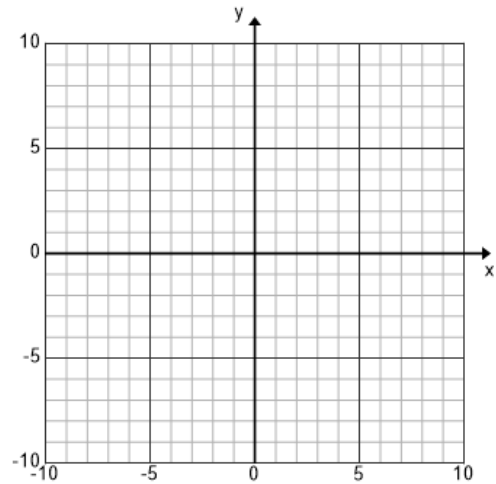
Quadrants:

Sign of the slope:



3. Is the line passing through the two points (8,2) and (4,-3) parallel, perpendicular, or neither to the line $2x - 5y = 13$?

4. Consider a line (LINE 1) with a negative slope and a negative y-intercept. Now consider another line (LINE 2) that is parallel to LINE1 and passes through (0,8). What quadrants will LINE 2 pass through?



Quadrants:

5. Write the equation of the line that passes through the point (6,-3) and is perpendicular to the line $3x - 7y = 21$. Write your final answer in **slope-intercept** form.

6. Write the equation of a line in point-slope form that passes through the point (4,6) and is parallel to the line that passes through (6,-6) and (10,-4).

7. Determine if the two lines below are parallel, perpendicular or neither.

Line 1 passes through (10, 15) and (1, -3)

Line 2 passes through (6, 3) and (3, 9)

8. Consider a line (**LINE 1**) that passes through quadrants 1, 2 and 3. Now consider another line (**LINE 2**) that is parallel to line and passes through quadrant 4. What quadrant will **LINE 2** not pass through? **AND** what is the sign (positive or negative) of **LINE 2**?

Quadrants:

Sign of the slope:

