

Math 60, Section 4.9 Review Organizer
Summary of Graphing Lines

Name: _____

****Make sure you know all the formulas****

Slope

Slope Formula	Slopes of Parallel Lines	Slopes of Perpendicular Lines

Three forms of a line

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Three methods of graphing a line

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How to write the equation of a line or linear model with the given information

Slope and y-intercept given	Slope and a point given	Two points given

Two special types of lines, with equations and slopes

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Graphing linear inequalities in two-variables

What are the steps to graph an inequality?	Inequality Symbol	Type of Line	Direction of Shading
	$y > mx + b$		
When do you reverse the inequality symbol?	$y \geq mx + b$		
	$y < mx + b$		
	$y \leq mx + b$		

Chapter 4 Review Problems

1. Without graphing, find the slope of the line between each pair of points.

a. (5,1) and (3,4)

b. (8,2) and (-5,2)

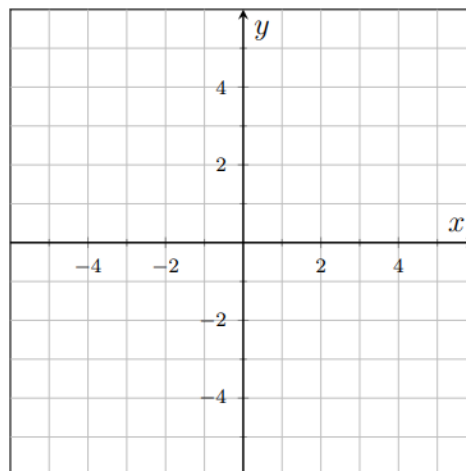
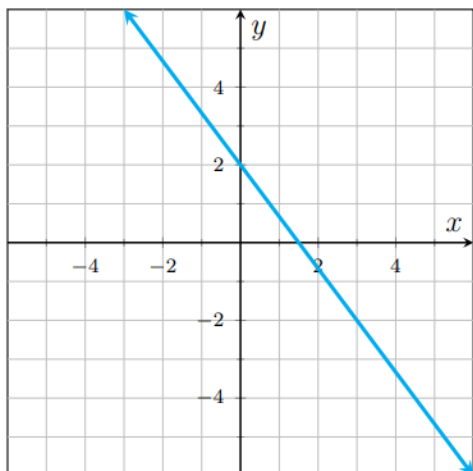
c. (2,-1) and (7,-2)

d. (2,-7) and (2,1)

2. a. Write the equation of the line below.

b. Graph the line by making a table.

$$y = 4x - 3$$

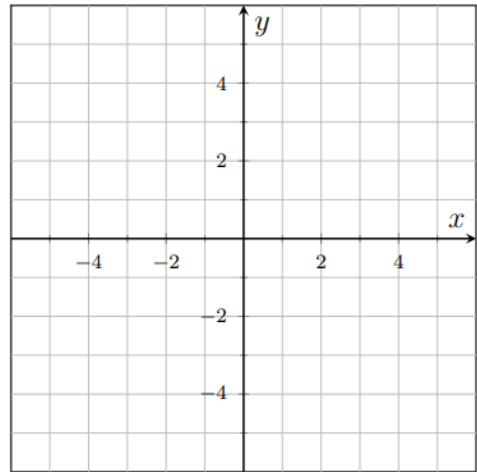
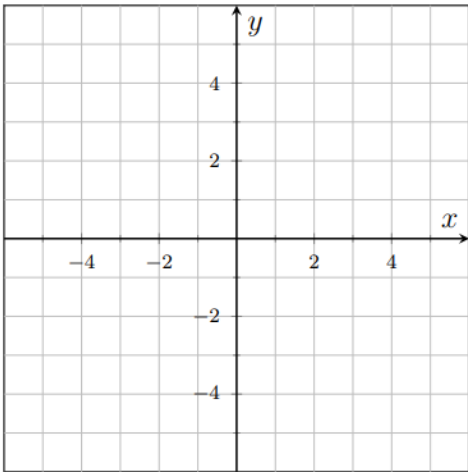


3. a. Graph the line using the slope and y-intercept

$$y = -2x + 5$$

b. Graph the line by finding the intercepts

$$3x + 2y = 6$$



4. a. Write the equation $2x + 4y = -8$ in slope-intercept form. What is the slope and y-intercept of this line?

b. Write the equation of a line passing through the point $(2, 7)$ with a slope of -4 . State this in slope-intercept form.

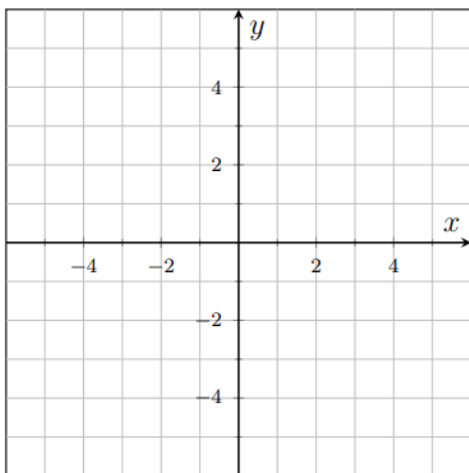
c. Write the equation of a line passing through the points $(-2, 6)$ and $(4, -12)$.

d. What is the slope of the line $x = 7$? What is the slope of the line $y = -5$?

e. Are the lines $y = 5x$ and $y = -5x$ parallel, perpendicular, or neither?

f. Are the lines $y = -3x + 1$ and $y = \frac{1}{3}x + 1$ parallel, perpendicular, or neither?

5. a. Graph the linear inequality $y \leq -2x + 1$.



b. Graph the inequality $2x - 4y < 8$

