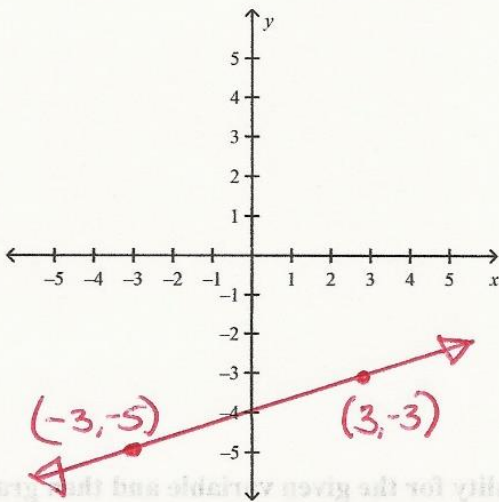
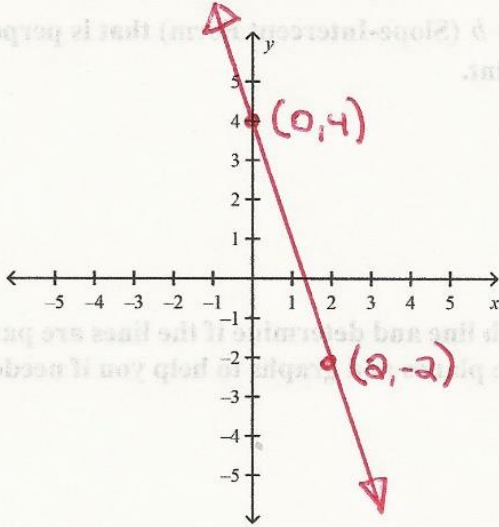


**Unit #2 Part #2 Practice Exam: Solving and Graphing One and Two Variable Inequalities & Solving and Graphing Absolute Value Equations, Inequalities, and Functions**

**Problem**

1. For each of the following graphs, please create an equation in  $y = mx + b$  (Slope-Intercept Form) that corresponds to information given.



3. For each of the following create an equation in  $y = mx + b$  (Slope-Intercept Form) using the two given points and the Point Slope Formula.

3. (2,4) and (0,6)

4. (6,-2) and (8,-3)

5. For each of the following create an equation in  $y = mx + b$  (Slope-Intercept Form) that is parallel to the given equation and passes through the given point.

5.  $y = -\frac{1}{2}x - 9$  and passes through  $(6, -5)$

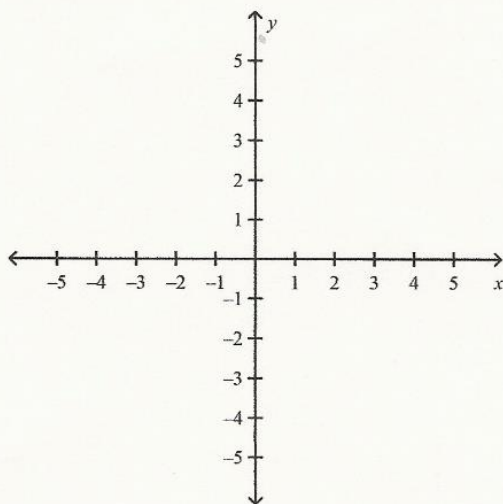
6.  $y = 3x + 8$  and passes through  $(-2, -3)$

7. For each of the following create an equation in  $y = mx + b$  (Slope-Intercept Form) that is perpendicular to the given equation and passes through the given point.

7.  $y = -3x + 2$  and passes through  $(-6, 2)$

8.  $y = -\frac{2}{3}x - 5$  and passes through  $(2, 5)$

9. For each of the following, figure out the slopes for each line and determine if the lines are parallel, perpendicular, or neither. (You can use the coordinate planes and graphs to help you if needed.)



Line #1:  $(3, 4)$  and  $(6, 5)$

Line #2:  $(5, 3)$  and  $(2, 2)$

10. For each of the following inequalities, solve the inequality for the given variable and then graph the inequality, and give me the solution set in interval notation.

10.  $2x - 16 - 3x > 6 - 3(2x + 4)$

11.  $-\frac{2}{3}(3x - 6) - 8 < \frac{1}{2}(2x + 4) - 2x$

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12. For each of the following compound inequalities, please solve the inequality, graph the inequality, and give me the solution set for the inequality in interval notation.

12.  $-8 \leq -4(2x - 2) + 12x + 4 \leq 16$

13.  $3x - 4 - 6x + 8 < 10$  or  $31 < -2(x + 1) - 4x + 9$

14. For each of the following inequalities, please graph the inequalities and shade the solution region of the inequality on the coordinate plane.

14.  $6x + 12y \leq -36$

15.  $-18x + 9y > -27$