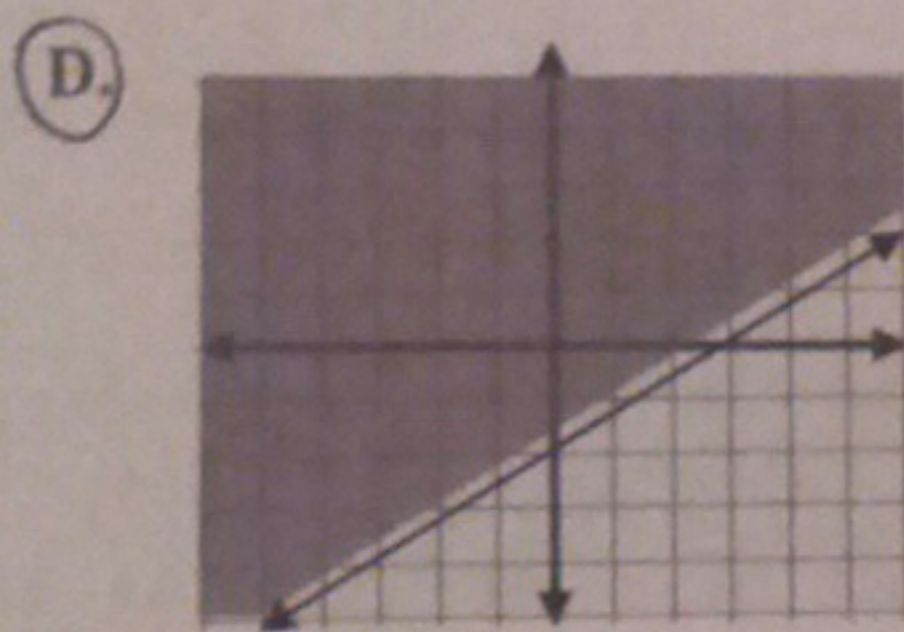
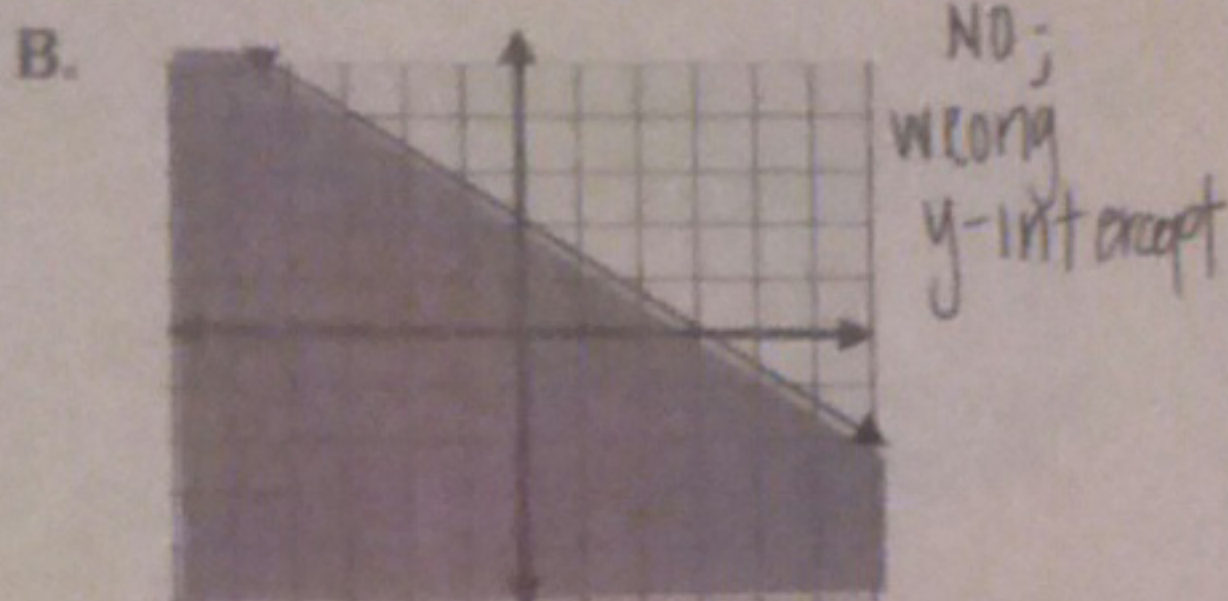
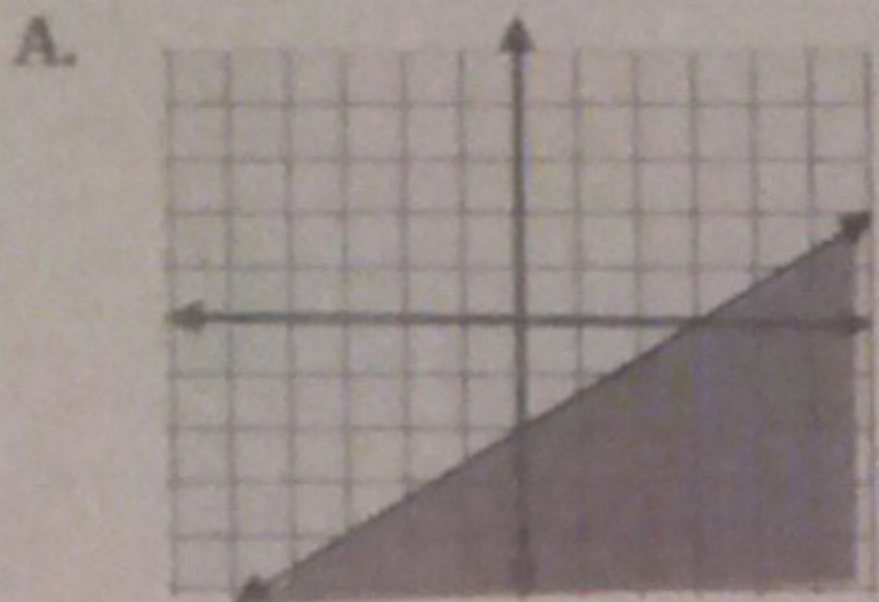


Section 5: Graphing Inequalities

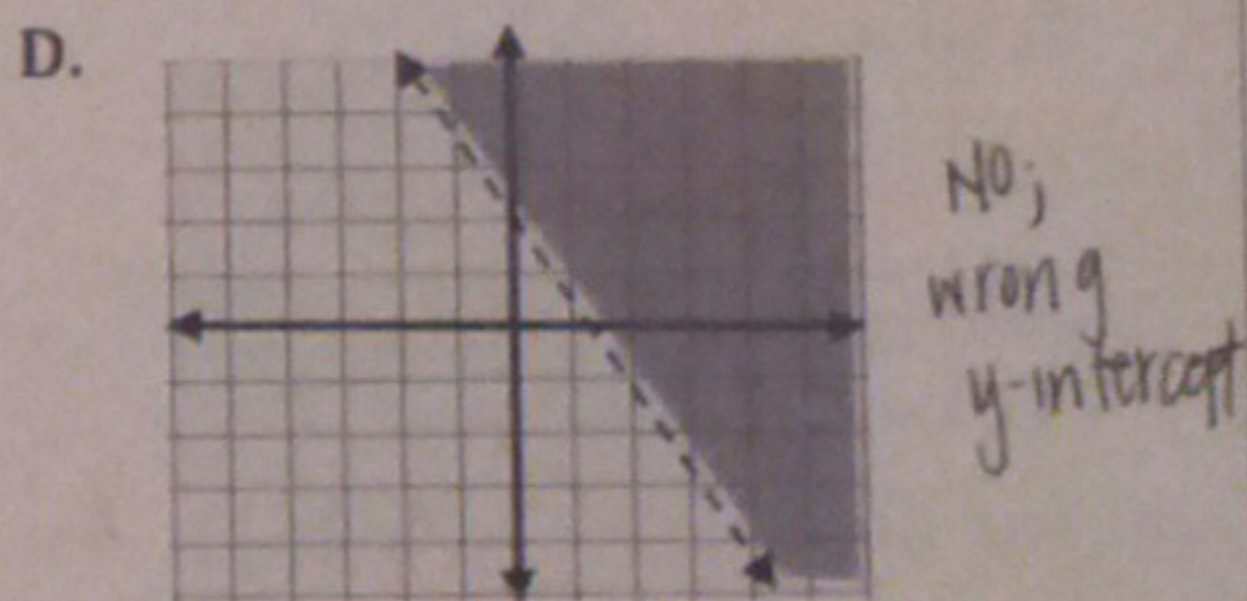
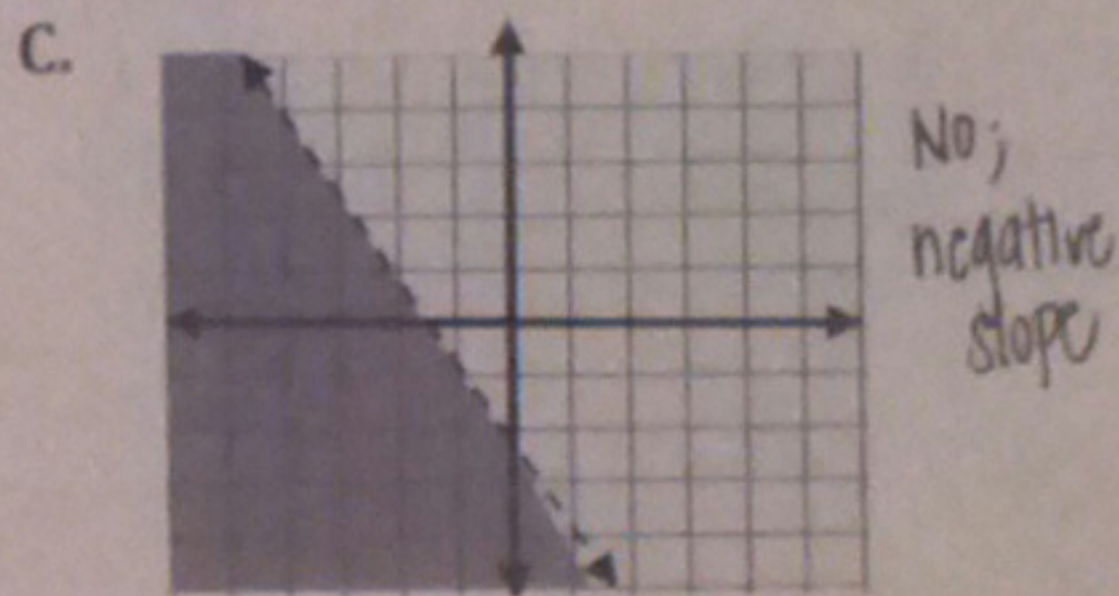
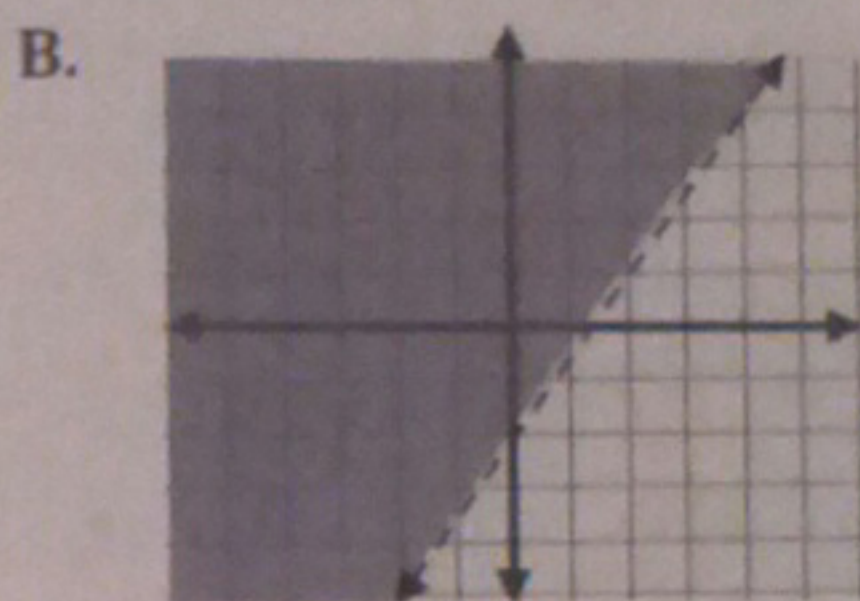
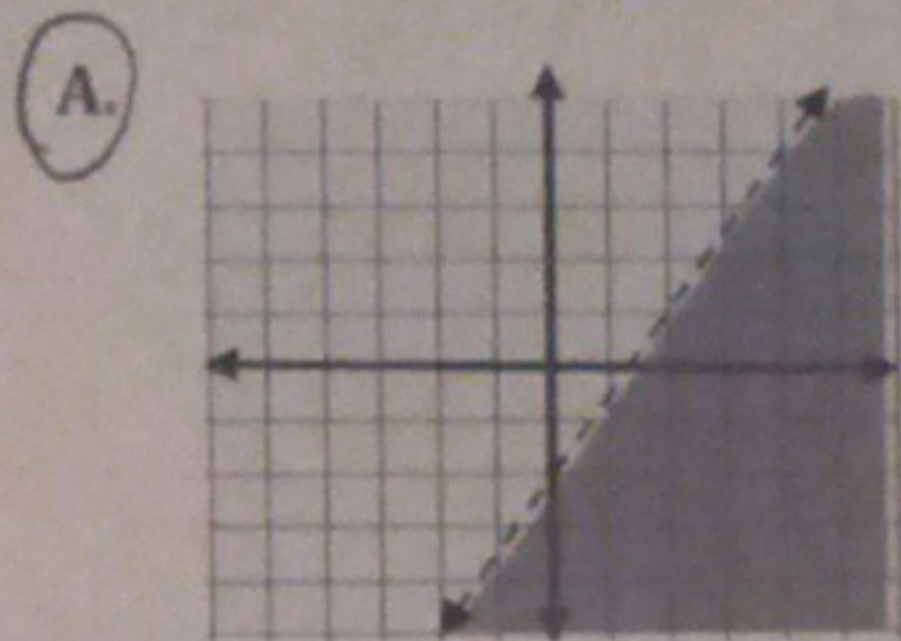
17. Which of the following is the solution to the inequality below?

Equation is not in slope-intercept form.
 Rewrite the equation → $2x - 3y \leq 6$



18. Which of the following is the solution to the inequality below?

$3x - 2y > 4$



$$\begin{array}{r} 2x - 3y \leq 6 \\ -2x \quad -2x \\ \hline \end{array}$$

$$\begin{array}{r} -3y \leq -2x + 6 \\ \div -3 \quad \div -3 \quad \div -3 \end{array}$$

divide by a negative, flip the symbol

$y \geq \frac{2}{3}x - 2$
 slope: $\frac{2}{3}$
 y-intercept: (0, -2)

*use a test pt (0,0) to check the direction you should shade. substitute the test pt into the original equation.

$$\begin{array}{r} 3x - 2y > 4 \\ -3x \quad -3x \\ \hline \end{array}$$

$$\begin{array}{r} -2y > -3x + 4 \\ \div -2 \quad \div -2 \quad \div -2 \end{array}$$

divide by a negative, flip the symbol

$y < \frac{3}{2}x - 2$
 slope: $\frac{3}{2}$
 y-intercept: (0, -2)