

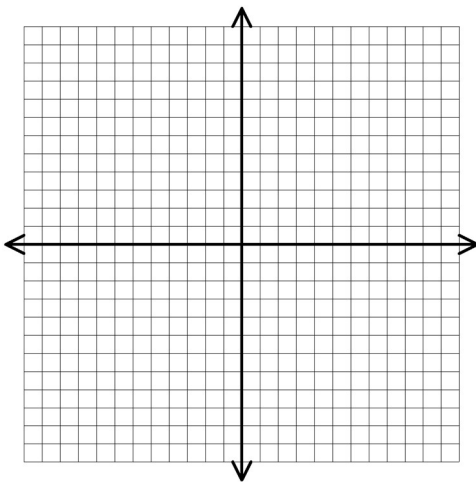
Practice 3.2.3**Remember to show your work!**

3-103. Algebraically solve the system of equations below and explain what the solution tells you about the graphs of the two equations.

$$\begin{aligned}3x + 2 &= y \\ -9x + 3y &= 11\end{aligned}$$

3-102. Make a complete graph of the system of inequalities below.

$$\begin{aligned}y &\geq |x| - 3 \\ y &\leq -|x| + 5\end{aligned}$$

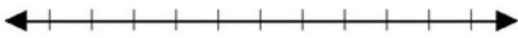


- What polygon is formed?
- What are its vertices?
- What is the area of the enclosed polygon?

3-103. Solve each of the following inequalities. Express the solutions algebraically and on a number line.

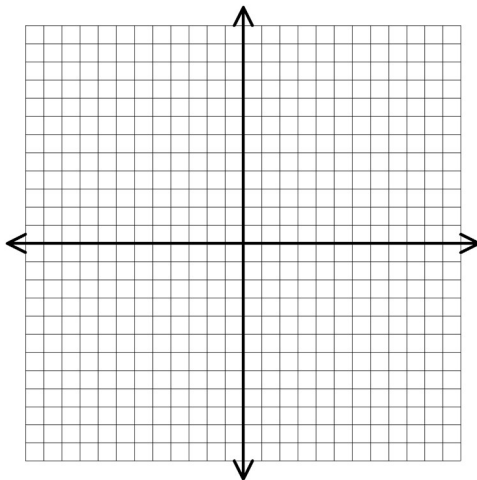
a. $3(x + 2) > 4x - 7$

b. $3x^2 - 4x + 2 \leq x^2 + x + 6$



3-105. A line intersects the graph of $y=x^2$ twice. One intersection point has an x-coordinate of -4 , and the other point has an x-coordinate of 2 .

a. Sketch both graphs and write the equation of the line.



Equation of Line: _____

b. What is the measure of the acute angle that the line makes with the x-axis?

3-106. At football practice the quarterback was throwing a football 22 yards on average, and the ball was reaching a height of 5 yards. Write an equation to represent the typical path of the practice ball.