Geometry Honors
Unit 5: Parallel and Perpendicular Lines
5.3b Distance Between a Point and a Line

Mathematician: _____

Period:_____

Directions: Find the distance between the following points.

1) (-4,5) and (6,8)

Distance: _____

2) (-1,-2) and (0,6)

Distance: _____

3) (3,4) and (10,5)

Distance: _____

4) (3,7) and (-11,5)

Distance: _____

Directions: Solve the following systems by substitution.

5) $\begin{cases} y = 2x - 2 \\ y = -x - 4 \end{cases}$

Point of intersection: _____

6) $\begin{cases} \frac{3}{2}y + \frac{9}{2} = 6x \\ \frac{4}{3}y = \frac{8}{3}x - 12 \end{cases}$

Point of intersection: _____
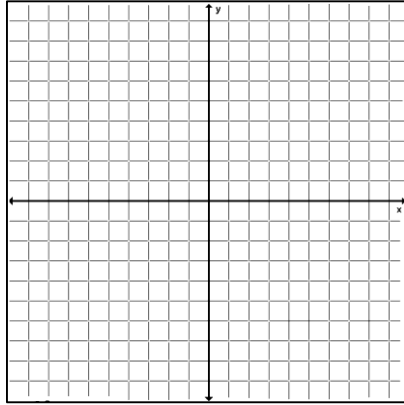
7) Find the distance between the point A(5,4) and the y-axis.

8) Find the distance between the point A(-7,6) and the line $y = 0$.

Distance: _____

Distance: _____

9) Find the distance between the point A(2,-8) and the line $y = -\frac{2}{3}x + 2$. Round to the nearest hundredth.

Distance: _____

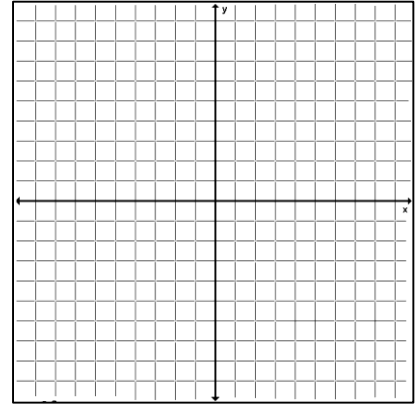10) Find the distance between the point A(-2,3) and the line $4x + 2y = 6$. Round to the nearest hundredth.

Distance: _____

11) Find the distance between the point A(1,6) and the line $y = \frac{4}{5}x - 3$. Round to the nearest hundredth.

Distance: _____

12) Find the distance between the lines $y = -\frac{1}{3}x + 4$ and $y = -\frac{1}{3}x - 6$.

Distance: _____