Part I: Graphing Linear Equations:
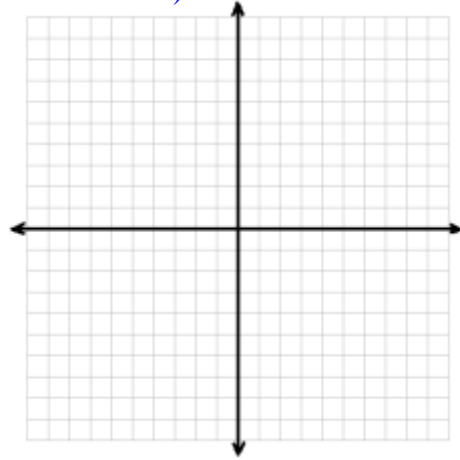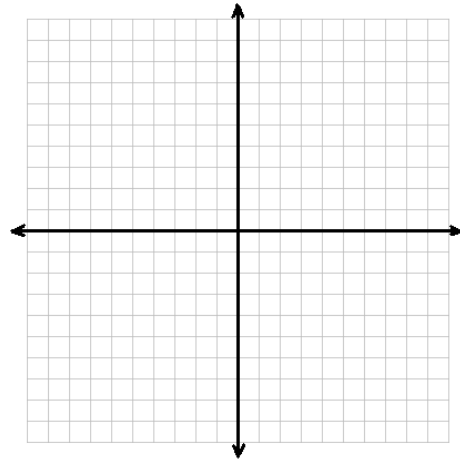
Find the equation in slope intercept form and graph: (1 on each set of axis)

1) (-3, 6)(4, -8)

2) (3, 5)(-6, -1)
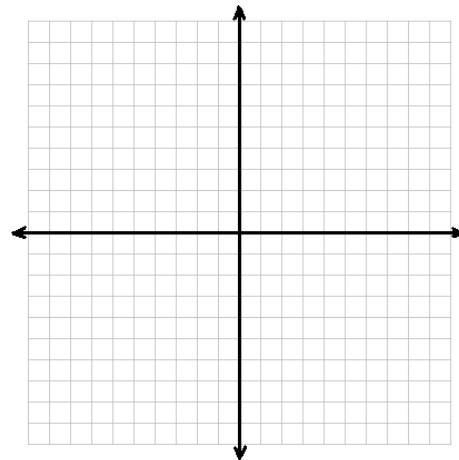
3) (4, -6)(-4, -6)

4) m = - ¾ (-8, 7)
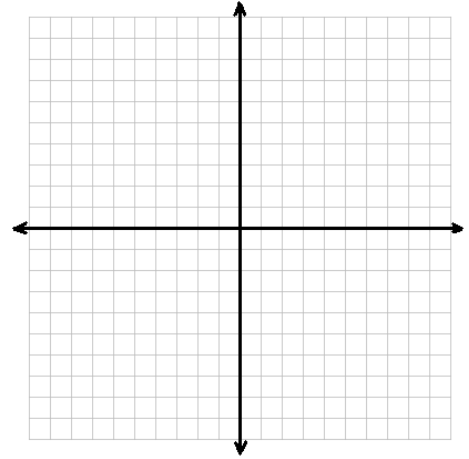
5) m = 2 (5, 6)

6) m = undefined (3,8)

7) y - 5 = ¼(x - 4)
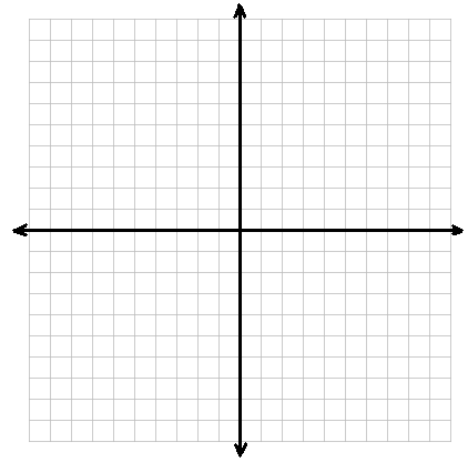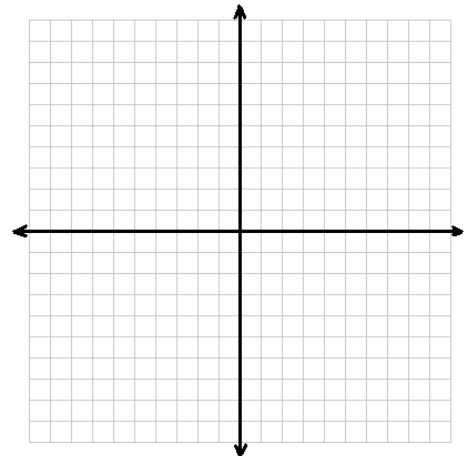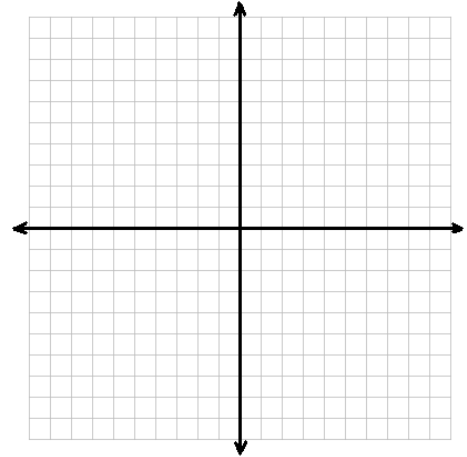
8) 48x - 12y = 72
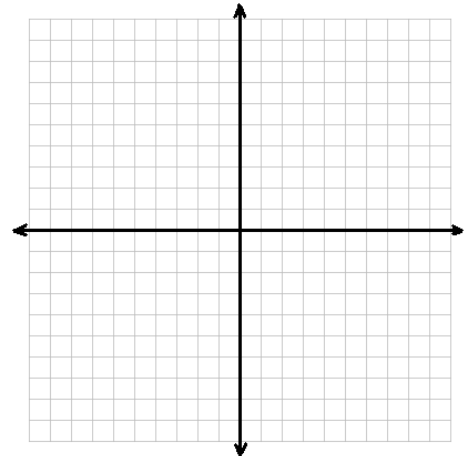
9) y + 2 = (-3/5)(x - 10)
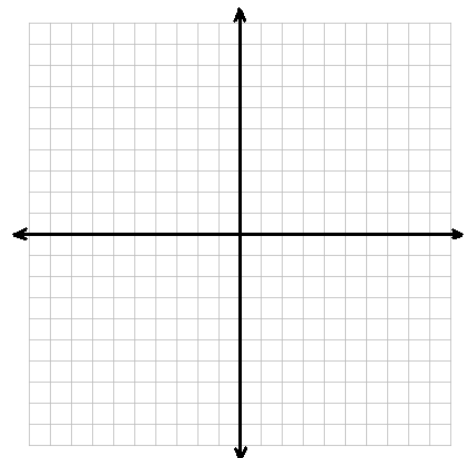
10) $54x + 18y = 36$
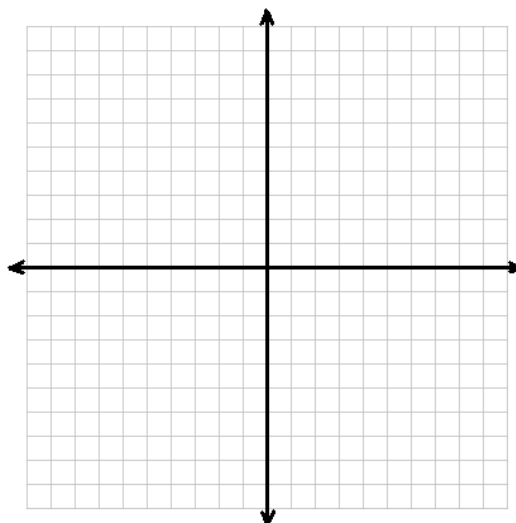
11) $55x - 22y = 66$

12) $y - 4 = (-1/3)(x + 3)$
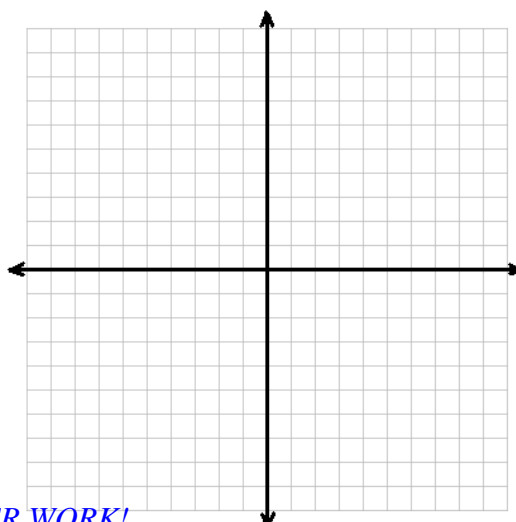
FOLLOW REQUIRED FORMAT AND SHOW ALL PROPER WORK!

a) Use the two points to find the equation of the line.
b)   For the line found in part a, find a line that is parallel and passes through the given point.
c) Graph both lines on the same set of axis.

<u>Given Line:</u>   <u>Parallel:</u>
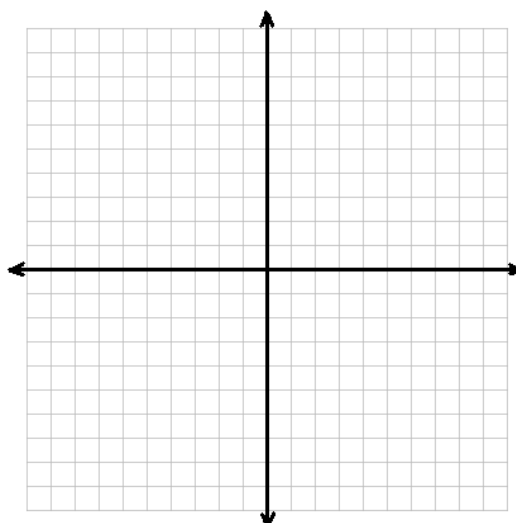1) (6, 7) (-9, -3)   (3,-4)
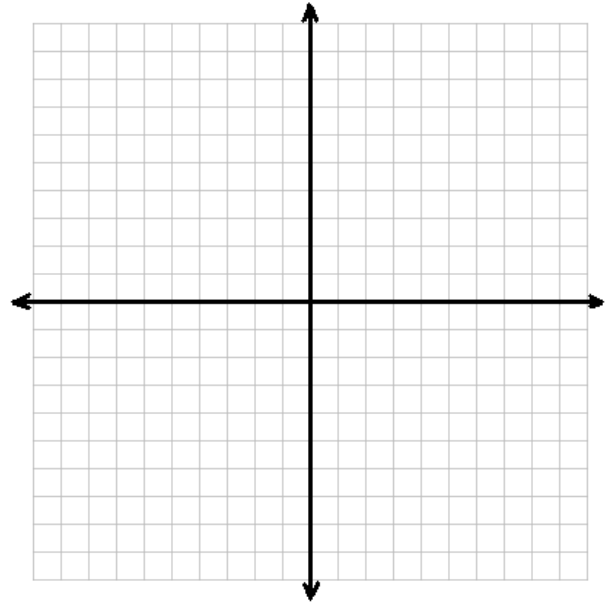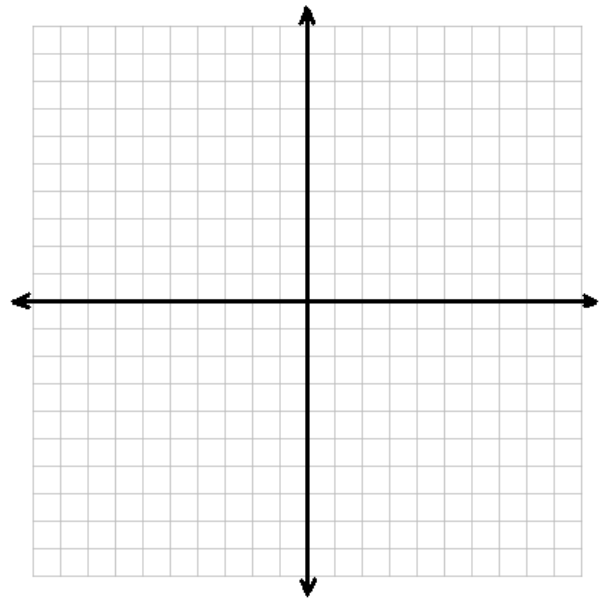
<u>Given Line:</u>   <u>Parallel:</u>
2) (-3,6) (4,-8)   (-6,7)

Given Line: Parallel:

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

Given Line: Parallel:

  4) (5,-6) (-4,-6)   (-6,5)
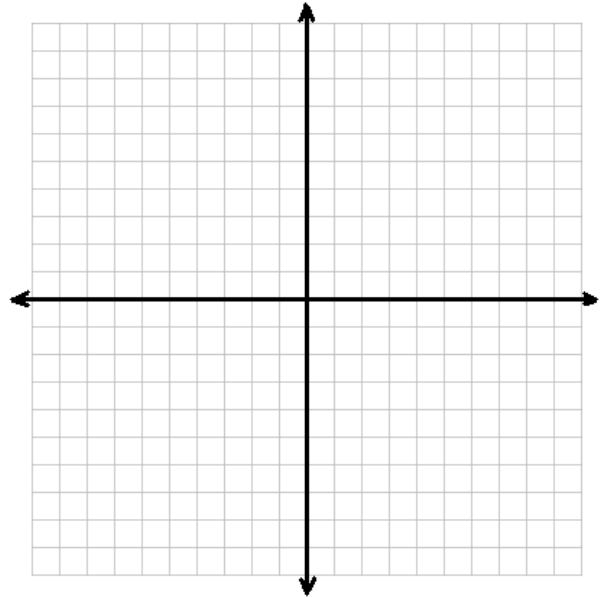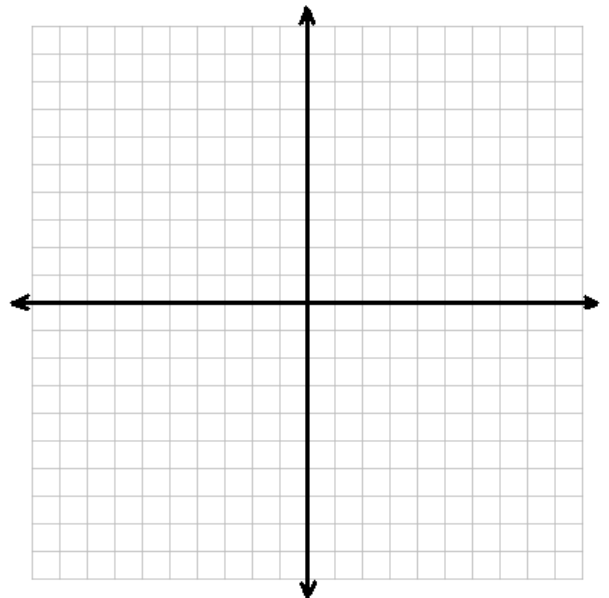
For #'s 5-8, just find the equation. You do not have to graph.

5) Find the equation of the line parallel to $y = \frac{2}{5}x - 2$, passing through (-5, 2).

6) Find the equation of the line parallel to $y = -5x - 6$, passing through (-2, 13)

7) Find the equation of the line parallel to $y = 2$, passing through (-8, -3)

8) Find the equation of the line parallel to $x = -4$, passing through (5, -11)

Answer Key:

Part I:

1) $y = -2x$
2) $y = \frac{2}{3}x + 3$
3) $y = -6$
4) $y = -\frac{3}{4}x + 1$
5) $y = 2x - 4$
6) $x = 3$
7) $y = \frac{1}{4}x + 4$
8) $y = 4x - 6$
9) $y = (-3/5)x + 4$
10) $y = -3x + 2$
11) $y = (5/2)x - 3$
12) $y = -\frac{1}{3}x + 3$

Part II:

1) $y = \frac{2}{3}x + 3$ $y = \frac{2}{3}x - 6$
2) $y = -2x$ $y = -2x - 5$
3) $x = 5$ $x = -3$
4) $y = -6$ $y = 5$

5) $y = \frac{2}{5}x + 4$
6) $y = -5x + 3$
7) $y = -3$
8) $x = 5$