Teaching Notes for Algebra I
Homework #9

Overview: In this lesson, students will begin learning to graph. They will learn how to plot points, how to graph a line by finding and plotting points, and graphing using y=mx+b. They will also learn about union and intersections of data sets.

Preparation: Watch video on "intro to graphing," "graphing with y=mx+b," "special lines," and "unions and intersections." Students need graph paper and rulers for class and their homework.
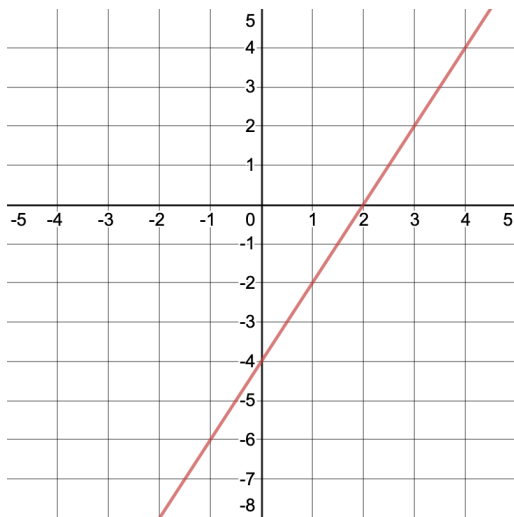
Classroom Examples:

1) Graph and label each of the following points all on one graph and state the quadrant for each point:

   A. (2, –3)   B. (–5, 1)   C. (3, –3)   D. (0, –4)   E. (–5, 1)

  *Do has many different points has needed. Be sure to choose points that lay on the axes.
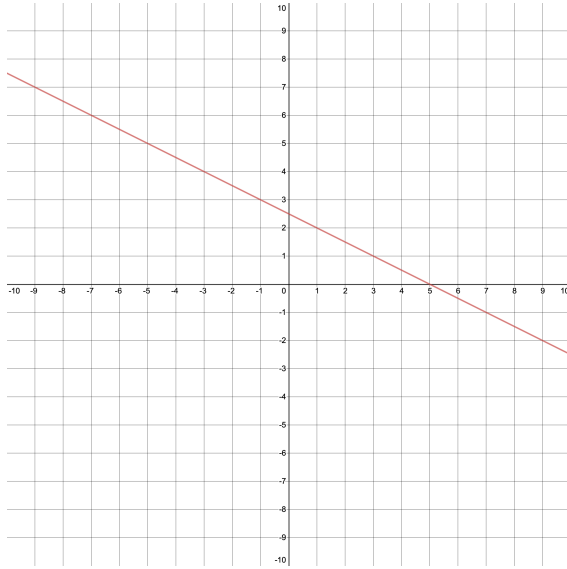
2) Graph the equation $2x - y = 4$ by plotting points.

3) Find $A \cup B$ if $A = \{-6, -3, -1, 0, 4, 6, 7\}$ and $B = \{-4, -3, 1, 2, 3, 4\}$

   $A \cup B = \{-6, -4, -3, -1, 0, 1, 2, 3, 4, 6, 7\}$
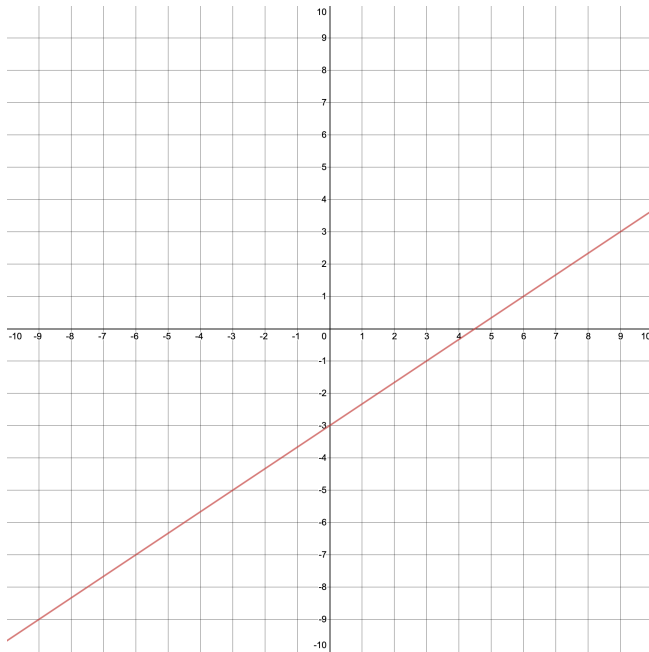
4) Graph the equation $x + 2y = 5$ by plotting points.

5) Find $A \cap B$ if $A = \{-10, -5, -3, -1, 1, 4, 6, 8\}$ and $B = \{-7, -5, -2, -1, 0, 1, 3, 5, 7\}$
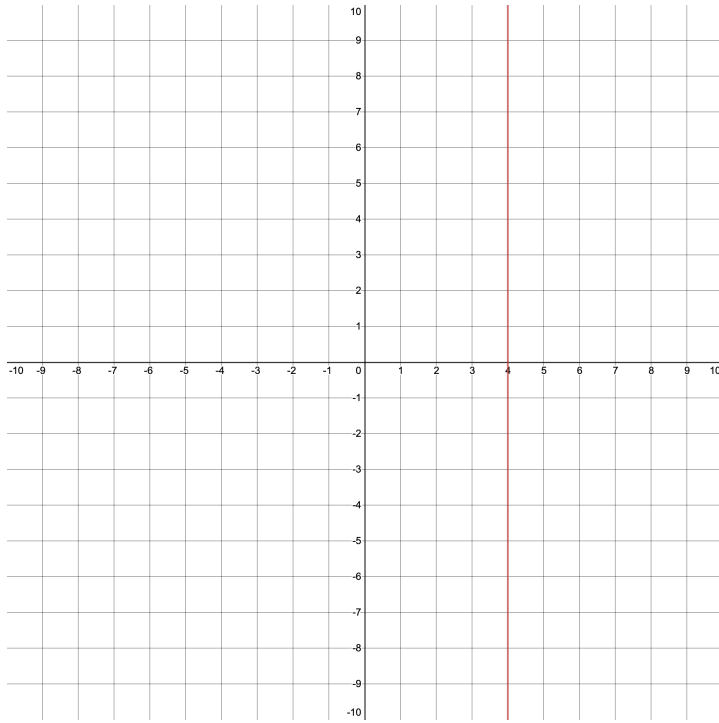
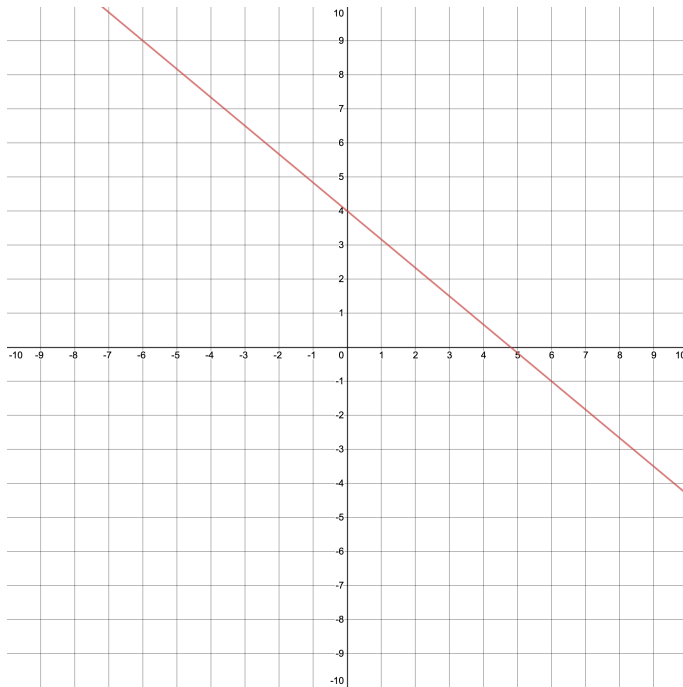$A \cap B = \{-5, -1, 1\}$

6) Graph the equation $2x - 3y = 9$
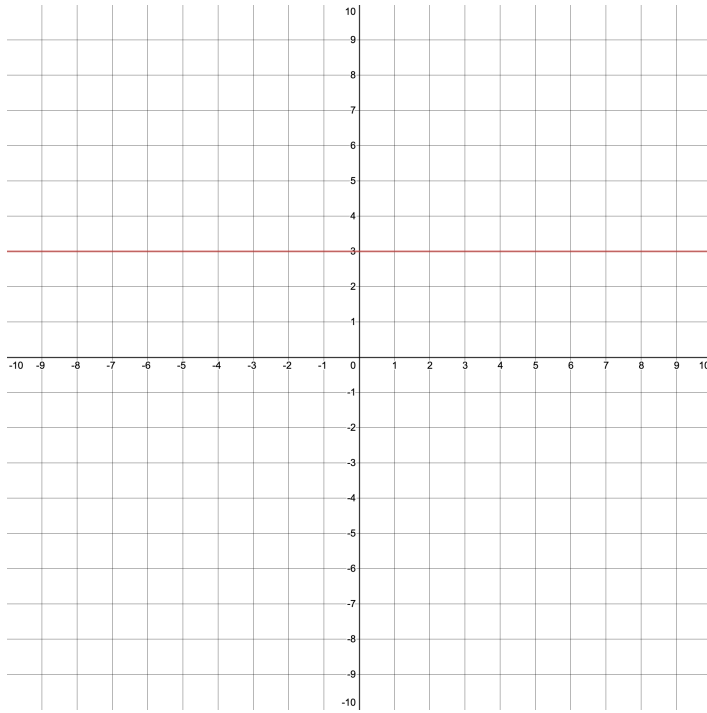

7) Graph the equation $5x + 4 = 29$

8) Graph the equation $y = \dfrac{-5}{6}x + 4$

9) Graph the equation $6 - 4y = -6$

Teaching Notes for Algebra I
Homework #9

10) Graph the equation $-y = -3x$