

**Instructions:** Complete these problems for homework due on the 2<sup>nd</sup> night of class. These should look very similar to those that were covered during our first class meeting. This is material from §1.1-1.3. Fractions are covered next homework.

1. Using the following set of numbers answer the questions that follow:

$$\{-53, -51/2, -\sqrt{2}, -3/4, 0, 1.8, \sqrt{4}, 1^{4/5}, \pi, \overline{7.6767}, 14\}$$

- a) List the integers \_\_\_\_\_
- b) List the whole numbers \_\_\_\_\_
- c) List the counting numbers \_\_\_\_\_
- d) List the rational numbers \_\_\_\_\_
- e) List the irrational numbers \_\_\_\_\_
- f) Graph  $-1^{2/5}$  and 0.7 on the same number line.

2. A rectangle has a length of 12 feet. Let  $L$  = length and  $W$  = width in feet. If  $A$  = area in square feet answer the following questions.

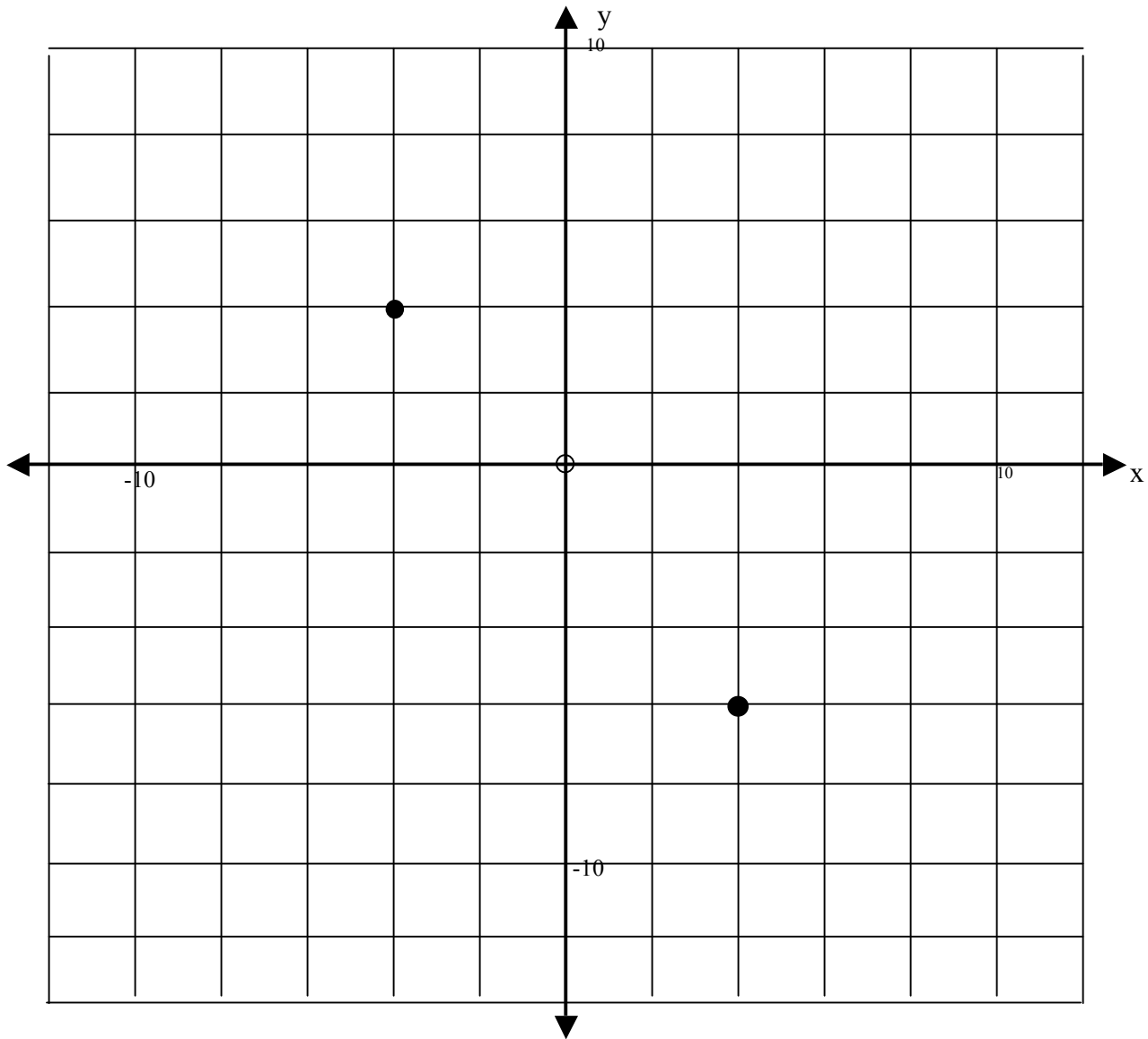
- a) Circle the letter(s) that represents a variable:       $L$                    $W$                    $A$
- b) Circle the letter(s) that represents a constant:       $L$                    $W$                    $A$
- c) Circle the correct word. If  $L = 12$  feet and  $A = 48$  square feet then  $W$  would be considered a(n) \_\_\_\_\_ variable.

independent

dependent

3. Evaluate the following expression when  $x = 2$ ,  $y = 3$        $6x - 4y$

4. On the following graph, **label** the **points** shown on the graph with ordered pairs.



5. Using the graph above plot the following ordered pairs and create a linear model. Then answer the questions that follow.

x	y
0	10
-6	8
-12	6

- What would you predict for the value of x to be when  $y = 12$ ? \_\_\_\_\_
- What would you estimate y to be when  $x = -3$ ? \_\_\_\_\_
- What is the x-intercept? Give it as an ordered pair. \_\_\_\_\_
- What is the y-intercept? Give it as an ordered pair. \_\_\_\_\_