

Name: \_\_\_\_\_

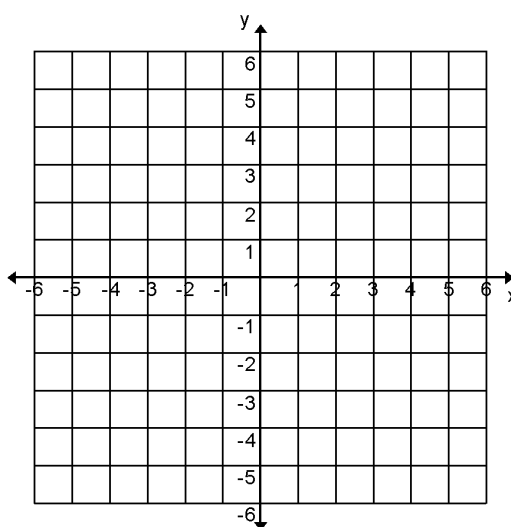
**Unit #3 Linear Systems – Practice Test**

1. Solve the following linear system by

**graphing.**

$$y = -\frac{2}{3}x + 1$$

$$y = x - 4$$



2. Solve the following linear system using the **substitution method.**

$$3x - y = 5$$

$$-5x + y = 2$$

a.  $x = -3y + 5$

b.  $3x - y = 10$

3. Use the **elimination method** to solve the following linear system.

$$-7x + 6y = 20$$

$$-2x + 3y = 8$$

a.  $7x - 2y = -16$

b.  $3x - 7y = 3$

4. Solve the following 2 linear systems using whichever method you prefer!

a.  $-2x + 3y = -13$

b.  $3x = 9y - 15$

$$-2x + 9y = -31$$

$$-y + 2x = 0$$

5. On a particular evening, 122 students and adults go to a show. Student tickets costs \$4 and adult tickets cost \$7. If ticket sales are \$614, how many students and adults go to the show?

*Let  $x$  represent the number of student tickets sold.*

*Let  $y$  represent the number of adult tickets sold.*

a. Create 2 equations.

b. Solve the linear system (using whichever method you want!).

c. Concluding statement.

6. Josh plays hockey. He earns 2 point for every goal he scores and 1 point for every assist. This season he had a total of 59 goals and assists and he earned 80 points. How many goals and assists did Josh get in the season?

*Let  $x$  represent the number of goals Josh scored.*

*Let  $y$  represent the number of assists Josh got.*

a. Create 2 equations.

b. Solve the linear system using whichever method you prefer.

c. Concluding statement.