

Intermediate Algebra Chapter 3 Test REVIEW

1. Solve by substitution

$$3x + y = -1$$

$$2y = -4x - 2$$

2. Solve by substitution

$$x + y + z = 10$$

$$x + z = 8$$

$$4z = 20$$

3. Solve by elimination

$$2x + 11y = 18$$

$$5x + 3y = -4$$

4. Is the ordered pair a solution to the inequality?

$$(3, 3) \quad 3x - 2y \leq 3$$

5. Is the ordered pair a solution to the system?

$$(2, 4) \quad y = 3x - 2$$

$$2x + y = 9$$

6. Write the inequalities shown in the graph

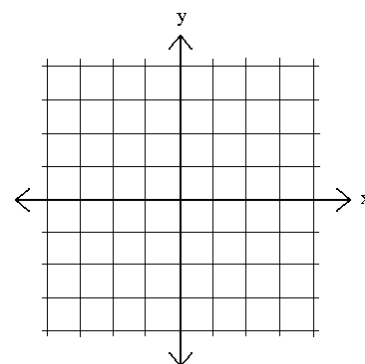
7. Graph the inequalities

$$x < -1$$

$$x > -4$$

$$y \leq 5$$

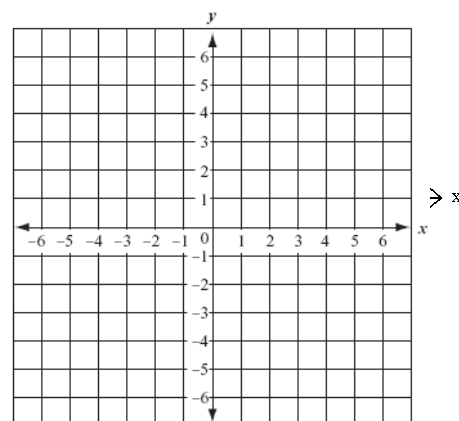
$$y \geq -1$$



8. Graph the inequalities

$$-3x \geq -12$$

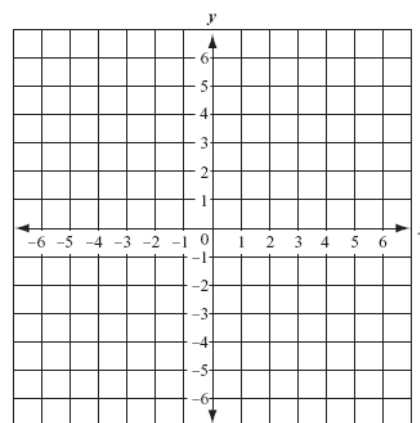
$$2y < 12$$



9. Graph the inequalities

$$y > \frac{3}{2}x - 7$$

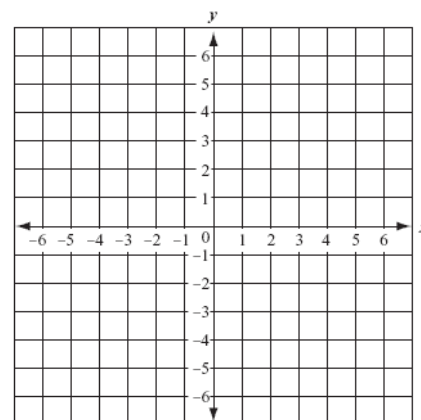
$$y \geq -2x + 3$$



10. Solve the system of equations by graphing. Classify the system.

$$y = 7x + 8$$

$$y = 3x$$

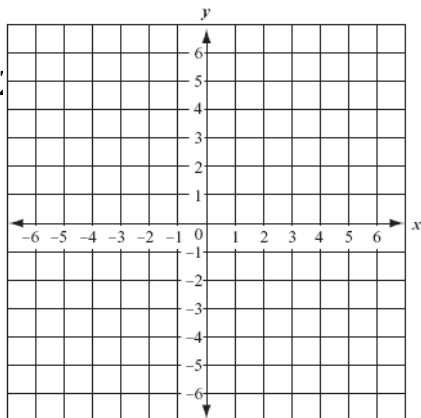


11. Solve the system of equations by graphing.

Classify the system.

$$2x + y = 1$$

$$2y = -4x - 2$$

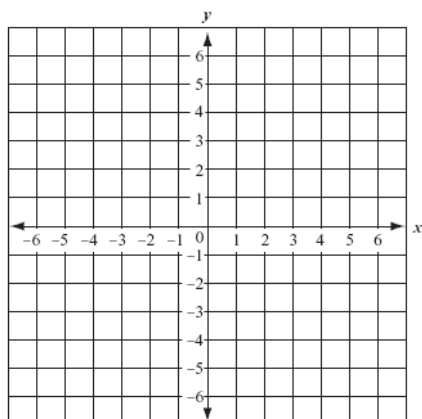


12. Solve the system of equations by graphing.

Classify the system.

$$3x - 2y = -2$$

$$x + 2y = -6$$

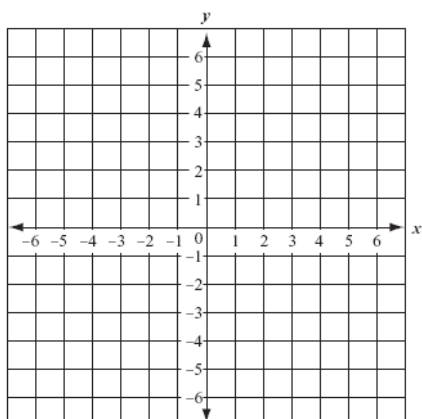


13. Solve the system of equations by graphing.

Classify the system.

$$y - x = 1$$

$$2x + y = -5$$



14. Three times one number added to five times another number is 54. The second number is two less than the first. Find the numbers.

15. The average of two numbers is 7. Find the numbers if three times one of the numbers is one half the other number.

16. Find the equation of the line connecting the points (3,5) and (9,1).

17. Solve. $14 - 3n = -10$

18. Solve for h. $V = \frac{1}{3}\pi r^2 h$

19. Solve the system.

$$y - 2x = -1$$

$$x + 3y = 4$$