

Unit 4 Exam Review #2**Short Answer**

Solve the system of equations using substitution.

1. $y = 3x + 9$
 $y = 4x + 3$

2. $y = 3x - 10$
 $y = 4x - 4$

Solve the system using elimination.

3. $2x - 2y = -8$
 $x + 2y = -1$

4. $3x - 4y = -24$
 $x + y = -1$

5. $-3x + 2y = 11$
 $-8x + 3y = 27$

6. Tell whether the system has *no solution*, *one solution*, or *infinitely many solutions*.

$$y = -5x - 2$$
$$y = -5x + 4$$

7. Tell whether the system has *no solution*, *one solution*, or *infinitely many solutions*.

$$y = -x - 2$$

$$y = 2x + 2$$

8. Solve the system of equations.

$$3x + 2y = 7$$

$$y = -3x + 11$$

9. Solve the system of equations.

$$4x + 2y = -12$$

$$5x + 6y = -8$$

10. By what number should you multiply the first equation to solve using elimination?

$$-3x - 3y = 6$$

$$-12x + 5y = -44$$

11. Is $(-2, 10)$ a solution of the linear inequality?

$$y \geq 4x - 5$$

12. Write the following inequality in slope-intercept form.

$$14x - 2y \geq -78$$

13. The grocery store sells apples for \$5.00 a pound and bananas for \$3.50 a pound. Write an equation in standard form for the weights of apples a and bananas b that a customer could buy with \$16.

14. At the beginning of the year, you have a balance of \$200 in your bank account. Each month you deposit \$40.

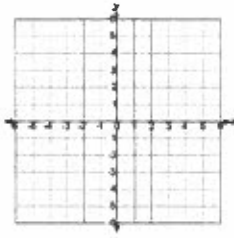
(a) Write an equation for this situation.

(b) Use the equation to find the balance in December. Hint: December is $x = 12$.

20. Solve the below system of linear equations by graphing.

$$y = -3x + 2$$

$$y = 3x - 4$$

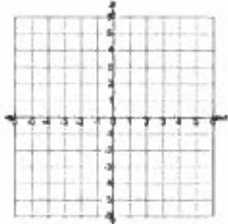


21. Solve the below system of linear equations by graphing.

$$x + y = -2$$

Solution: _____

$$-2x + 3y = 9$$



22. Solve the following system of inequalities by graphing.

$$x + y < 3$$

$$-2x + 4y \geq 0$$

