Algebra 2
Review for Test 6

The 6-weeks test (common assessment) will be on Tuesday, November 11 and Wednesday November 12.

1. Find the equation of the line that is perpendicular to $y = \frac{2}{3}x - 5$ that has a *y*-intercept of (0, 2).

2. Find the inverse of the equation $y = \frac{1}{2}x - 5$

3. Find the equation of the line that passes through the point (5, 2) and has slope of $\frac{3}{5}$:

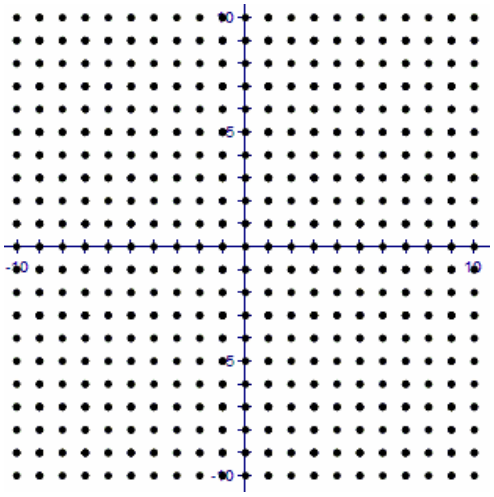
4. Find the equation of the line that is parallel with $y = \frac{3}{5}x - 4$ that has a *y*-intercept of (0, 6).

5. A line goes through the points (1, 4), (2, 5) and (4, *k*). What is the value of *k*?

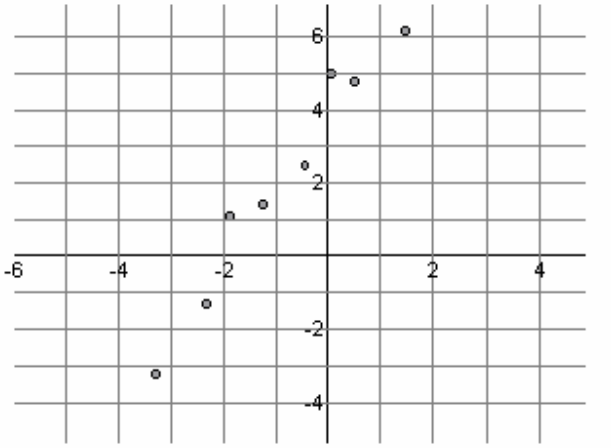
6. Graph the following system and find the solution:

$x + y = -3$

$3x + y = 1$



7. Find an equation that models the following scatterplot and use that line to predict the y value when $x = 4$. Is the correlation positive, negative, or about 0?



8. Solve the following system:

$-2x + y = 4$

$4x = -2y - 10$

9. Solve the following system:

$2x + y = -2$

$5x + 3y = -8$

10. Solve the following system:

$$3x + 8y = -5$$
$$-2x + 2y = 18$$

11. Solve the following system:

$$-x - 2y = -5$$
$$-2x - 4y = -10$$

12. Solve the following system:

$$3x - 2y + 4z = 20$$
$$-x + 5y + 12z = 73$$
$$x + 3y - 2z = 1$$

13. Solve the following system:

$$2x - 2y + z = 7$$
$$4x - 4y + 2z = 17$$
$$3x + 2y - 6z = -2$$

14. Find the inverse of the equation $y = 3x + 6$

15. Solve the following system:

$$2x - y = 6$$
$$8x - 4y = 13$$

16. Solve the following system:

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