Name_____ Period____ Date_____
Algebra 2: Review Worksheet A 2008-2009
Topic 2: Linear Equations

Directions: Calculators are not allowed.

1) Find the y-intercept of the given line.
A) $5y = 5x - 15$ B) $2x \_ - 6y = 24$ C) $y = -3x + 6$ D) $2x = 3y + 6$

2) A) Write the equation of the horizontal line which passes through the point (-6, 5).

B) Write the equation of the vertical line which passes through the point (8, 2).

3) Find the slope of the line which passes through the following pairs of points.

A) (2, -1), (4, 8) B) (3, -6), (-1, -6) C) (2, 7), (2, -3)

4) Given the following 4 lines, circle the one which is the steepest.

A) $y = \frac{3}{2}x - 2$ B) $y = -1\frac{3}{4}x + 4$ C) $y = -1.9x$ D) $y = 1.6x + 5$

5) A) Line b is parallel to line c. Line b has a slope of -4. What is the slope of line c?

B) Line j is perpendicular to line k. Line k has a slope of $\frac{2}{5}$. What is the slope of line j?

6) A) Find the x-intercept of the line $8x - 3y = 24$.

B) Find the y-intercept of the line $-2x - y = -10$.

7) Find the slope of the line $3x - 5y = 2$. (Remember to change to slope-intercept form first.)

8) Which of the following points satisfies the linear inequality $2x - y < -8$?

A) (-4, 0) B) (2, 4) C) (5, 2) D) (-6, 2)

9) Write the equation of a line which has a slope of 3 and passes through (-2, 5). Write your answer in slope-intercept form.

10) Write the equation of a line which has a slope of $-\frac{3}{4}$ and a y-intercept of 2. Write your answer in slope-intercept form.

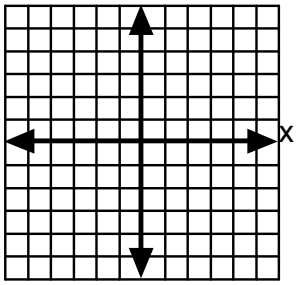
11) Write the equation of a line which passes through the points (2, 5) and (4, 2). Write your answer in slope-intercept form.

12) Write the equation of a line which passes through (-1, 5) and is parallel to a line which contains the points (4, -3) and (5, -1). Write your answer in slope-intercept form.

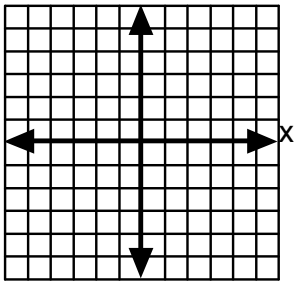
13) Write the equation of a line which passes through (2, 6) and is perpendicular to a line which contains the points (-5, 8) and (1, 5). Write your answer in slope-intercept form.

14) Sketch the line graph from the given information.

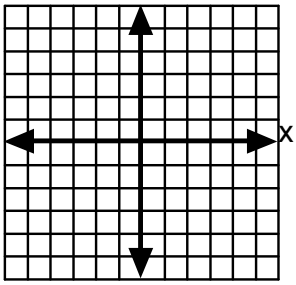
A) $y = -\frac{1}{3}x + 1$



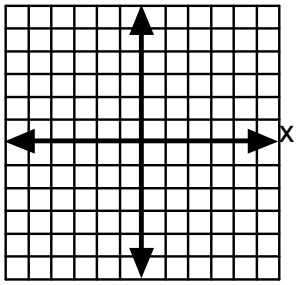
B) $-x + 3y = -3$



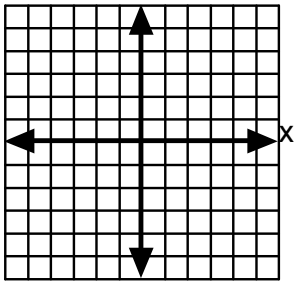
C) x-intercept = 2, y-intercept = -3



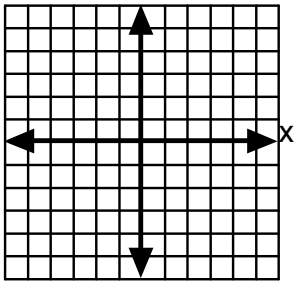
D) Contains (2, 0), m = -4



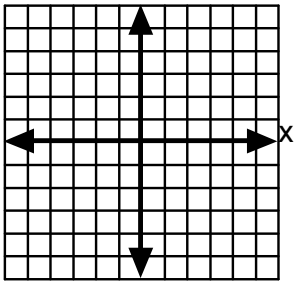
E) $y = x$



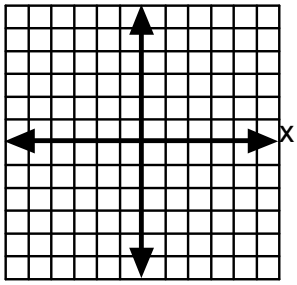
F) $x + 3 = -1$



G) $4y + 1 = 13$

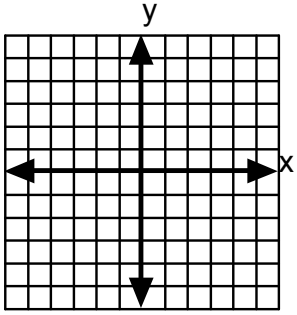


H) $2y = 4x + 6$

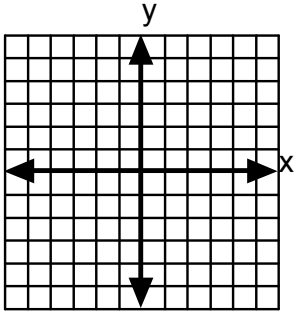


15) Sketch the graph of each of the following inequalities.

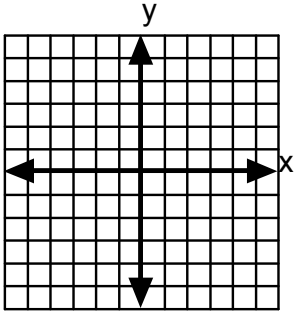
A) $2y > 4$



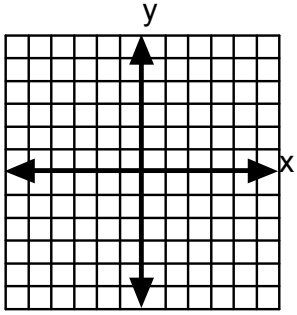
B) $y \geq \frac{1}{2}x$



C) $y \leq -x + 3$



D) $3x - y > 3$

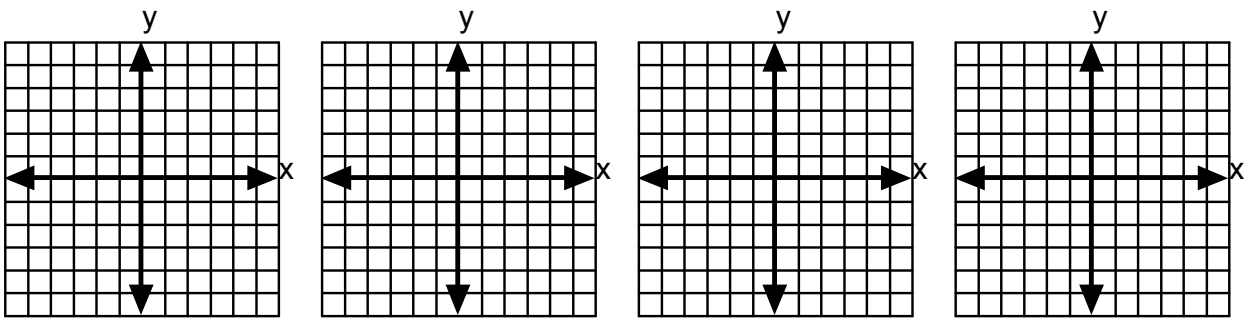


E) $y \geq -x$

F) $3x < 9$

G) $2y \leq -4x + 2$

H) $y > x + 2$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