Algebra 1 Review Week 1 Name_____

Teacher Name:_____ Period____

You must show all work to receive credit.

Solve each equation.

1) $13 - 7n = -(-7 + 6n)$

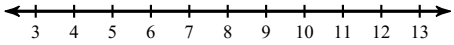
2) $-5(7 - 2x) + 3 = -32 + 3x$

3) $\frac{9}{2} = \frac{17}{5}m + 2m$

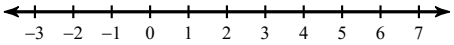
4) $b + \frac{7}{6} - 2 = \frac{7}{6}$

Solve each inequality and graph its solution.

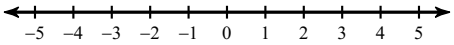
5) $21 + 2m \geq -(-4m - 7)$



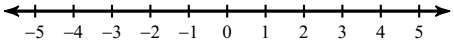
6) $-(8x - 4) > -2x + 10$



7) $-8 \geq -2(-7 - a) + 2(1 - 7a)$



8) $-5(7 + 7x) - 5(-7x + 1) \geq -4$



Solve each proportion.

9) $\frac{a - 9}{9} = \frac{a + 9}{7}$

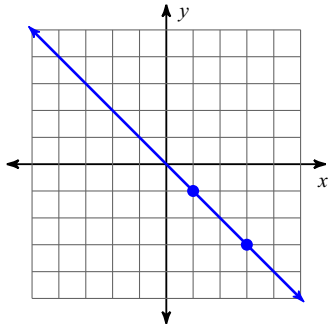
10) $\frac{7}{4} = \frac{a - 7}{a - 1}$

11) $\frac{n + 8}{7} = \frac{n + 8}{6}$

12) $\frac{2}{4} = \frac{x + 6}{x + 1}$

Find the slope of each line.

13)



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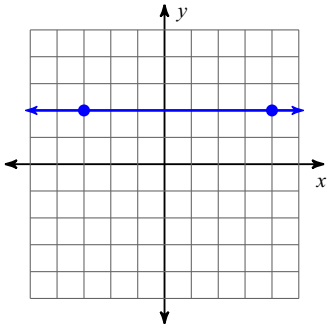


Find the slope of the line through each pair of points.

15) $(17, 4), (-1, -6)$

16) $(-2, 19), (13, -14)$

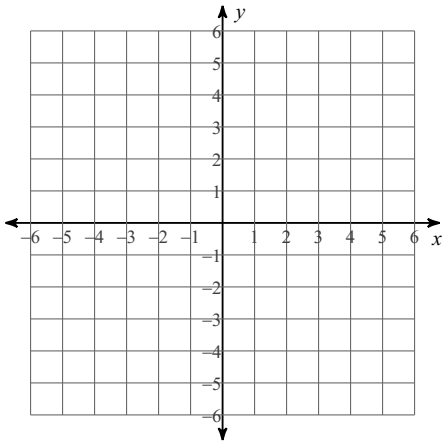
Find the value of x or y so that the line through the points has the given slope.

17) $(-6, 1)$ and $(-1, y)$; slope: $\frac{3}{5}$

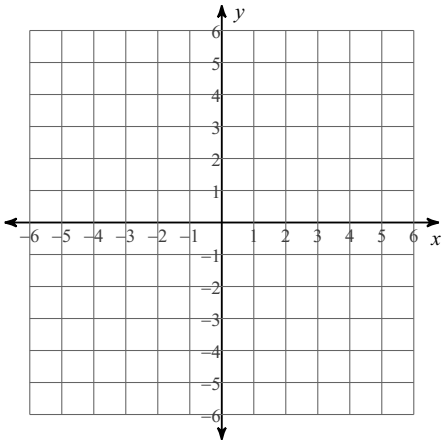
18) $(5, -6)$ and $(2, y)$; slope: $-\frac{5}{3}$

Find the slope and y-int for each equation and then graph each line.

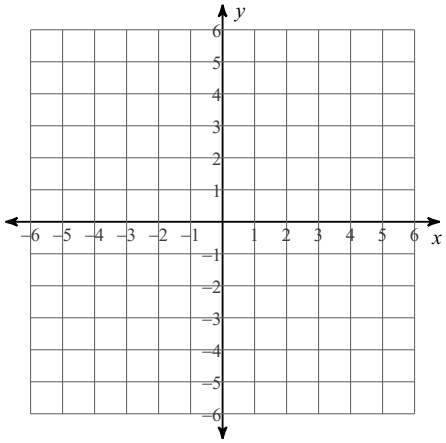
19) $y = 7x - 4$



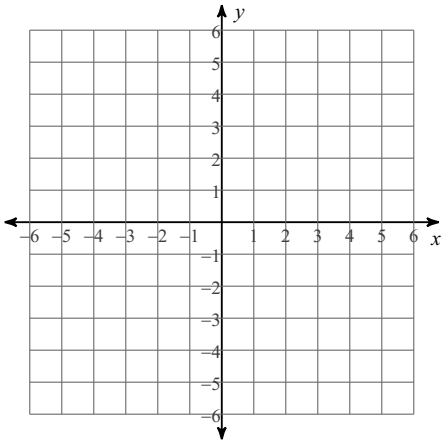
20) $y = \frac{1}{5}x + 5$



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

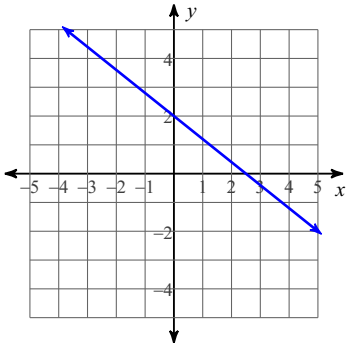


22) $y = 4x - 2$



Write the slope-intercept form of the equation of each line.

23)



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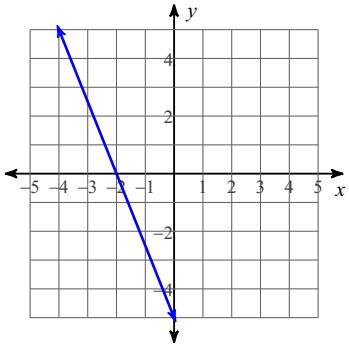


25) $3x + y = 1$

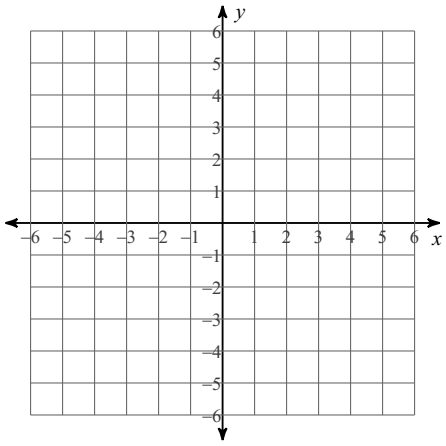
26) $4x - y = -2$

27) $y - 3 = -\frac{3}{4}(x + 4)$

28) $y - 5 = -\frac{1}{3}(x + 2)$

Sketch the graph of each linear inequality.

29) $y > \frac{4}{5}x$



30) $y \leq -\frac{4}{3}x - 1$