

Bonus Assignment #1 - DUE the first day of class!

Date _____

Solve each equation.

1) $-4 = -6k - 4 - 5k$

2) $123 = -7(6 + 3n) - 3$

3) $6(3 + 8x) + 7x = -2x + 18$

4) $-\frac{11}{2} = -\frac{4}{3}n + 5n$

5) $|n - 7| = 14$

6) $|-6x| - 7 = 41$

Solve each proportion.

7) $\frac{5}{2} = \frac{x}{9}$

8) $\frac{10}{4} = \frac{k - 6}{2}$

9) $\frac{10}{r + 9} = \frac{9}{r}$

10) $\frac{8}{5} = \frac{n + 10}{n + 1}$

Solve each equation. Remember to check for extraneous solutions.

11) $5 = \sqrt{r}$

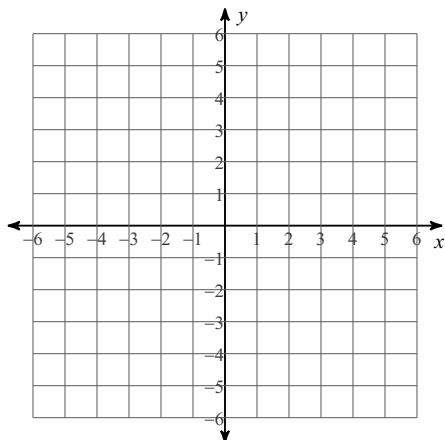
12) $\sqrt{6 - r} = \sqrt{5r}$

Solve each equation for the indicated variable.

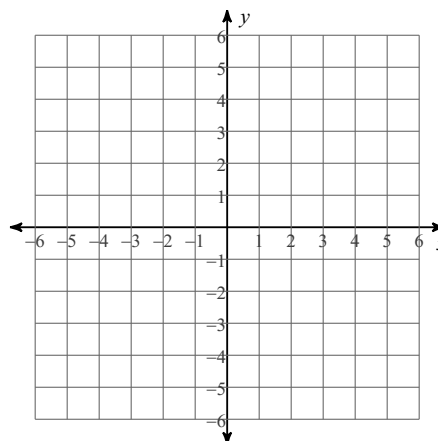
13) $ca = \frac{d}{r}$, for a

Sketch the graph of each line.

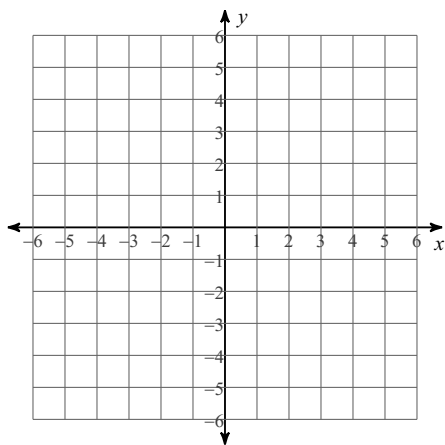
14) x -intercept = 2, y -intercept = -1



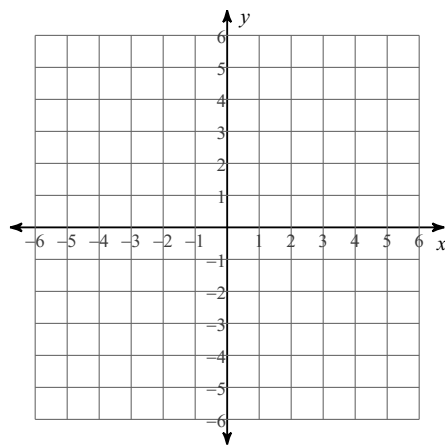
15) $y = \frac{7}{5}x - 4$



16) $y = 1$

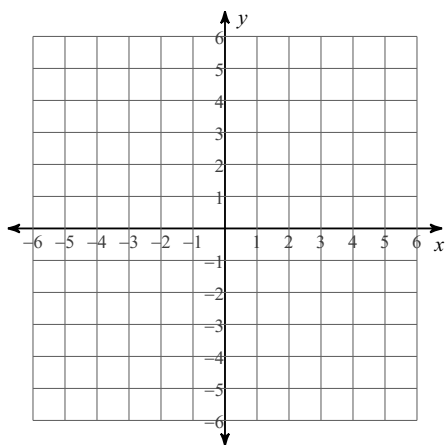


17) $0 = 1 + x$

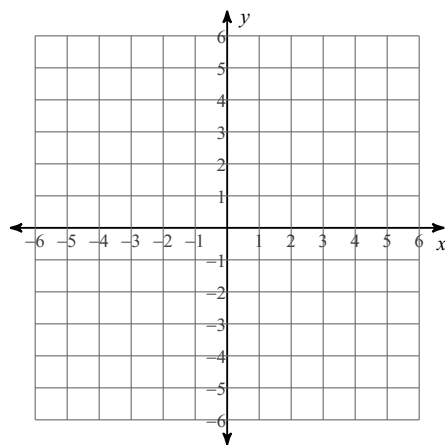


Sketch the graph of each linear inequality.

18) $y \geq \frac{8}{5}x + 3$

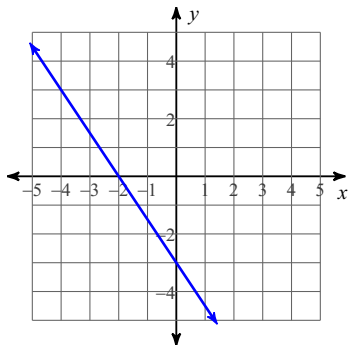


19) $8x - y \geq 5$



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

20)



Write the slope-intercept form of the equation of each line given the slope and y-intercept.

21) Slope = $-\frac{3}{2}$, y-intercept = 1

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

22) $x - y = -4$

23) $y - 2 = \frac{1}{2}(x + 4)$

Write the slope-intercept form of the equation of the line through the given point with the given slope.

24) through: $(-3, 3)$, slope = 1

Write the slope-intercept form of the equation of the line through the given points.

25) through: $(-3, -5)$ and $(-4, -1)$

Write the point-slope form of the equation of the line through the given point with the given slope.

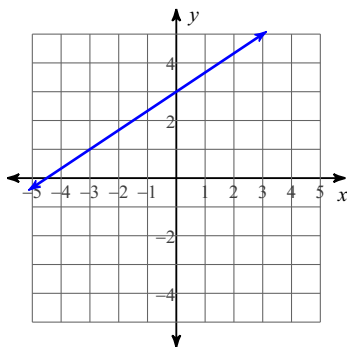
26) through: $(-1, -4)$, slope = 2

Write the point-slope form of the equation of the line through the given points.

27) through: $(3, 3)$ and $(4, -5)$

Write the standard form of the equation of each line.

28)

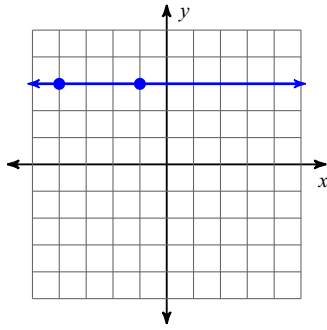


Write the standard form of the equation of each line given the slope and y-intercept.

29) Slope = $\frac{1}{5}$, y-intercept = 0

Find the slope of each line.

30)



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

31) $(1, -2), (5, 11)$

Find the slope of each line.

32) $y = 3x + 2$

Find the slope of a line parallel to each given line.

33) $y = \frac{2}{5}x - 5$

34) $y = 2x + 1$

35) $5x - 2y = 0$

Find the slope of a line perpendicular to each given line.

36) $3x + 4y = -4$

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

37) through: $(5, 3)$, parallel to $y = -\frac{2}{5}x - 1$

38) through: $(-2, -4)$, parallel to $y = -\frac{1}{4}x - 5$

39) through: $(2, -1)$, perp. to $y = \frac{2}{5}x + 4$

40) through: $(1, -5)$, perp. to $y = \frac{1}{5}x$

Answers to Bonus Assignment #1 - DUE the first day of class! (ID: 1)

1) $\{0\}$

3) $\{0\}$

5) $\{21, -7\}$

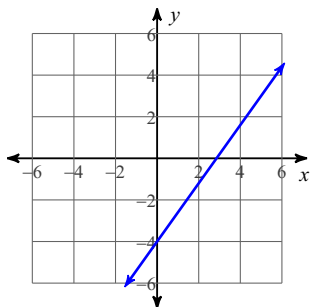
7) $\begin{pmatrix} 45 \\ 2 \end{pmatrix}$

9) $\{81\}$

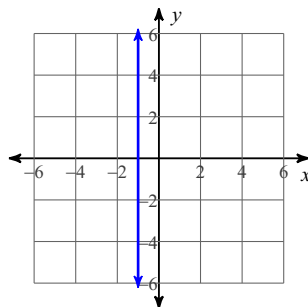
11) $\{25\}$

13) $a = \frac{d}{cr}$

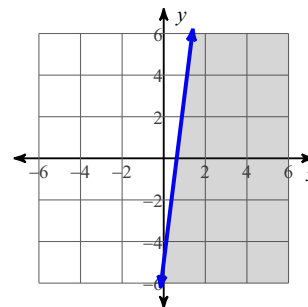
15)



17)



19)



21) $y = -\frac{3}{2}x + 1$

23) $y = \frac{1}{2}x + 4$

25) $y = -4x - 17$

27) $y - 3 = -8(x - 3)$

29) $x - 5y = 0$

31) $\frac{13}{4}$

33) $\frac{2}{5}$

35) $\frac{5}{2}$

37) $y = -\frac{2}{5}x + 5$

39) $y = -\frac{5}{2}x + 4$