

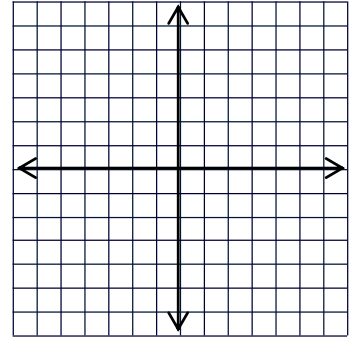
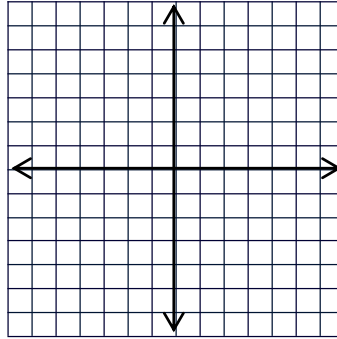
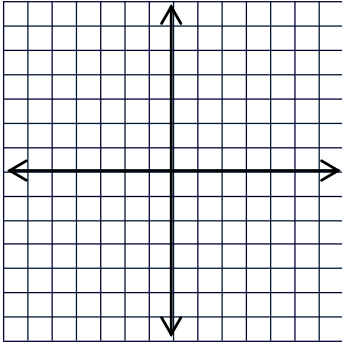
Directions: Do not use a calculator. All answers must be simplified and exact.

Graph by finding the x and y intercept(s). If the graph is a parabola then find the vertex as well.

62)  $3x - 4y = 12$

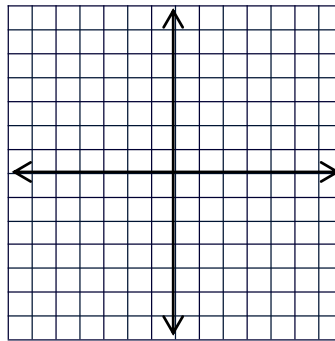
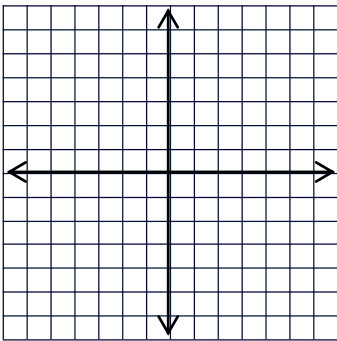
63)  $y = x^2 - 2x - 8$

64)  $y = x^2 + 4x$



65)  $y = x^2 - 4$

66)  $-2x + y = 4$



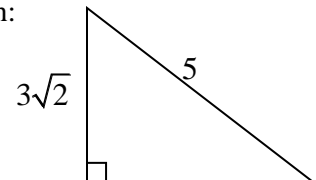
Solve each of the following systems using the method of your choice (graphing, substitution, elimination)

67)  $15x - 5y = 30$   
 $y = 2x + 3$

68)  $3x + y = 5$   
 $2x - y = 10$

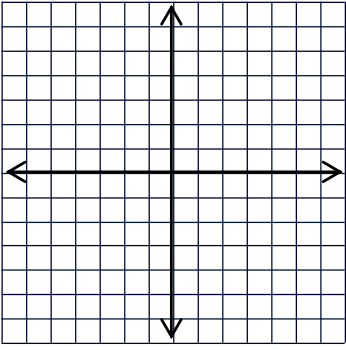
69)  $5x - 7y = 31$   
 $-4x + 2y = -14$

70) Find the missing side length:



Graph. Find the domain and range when requested.

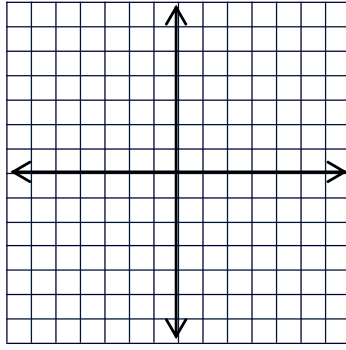
71)  $5y = 15 - 2x$



Domain:

Range:

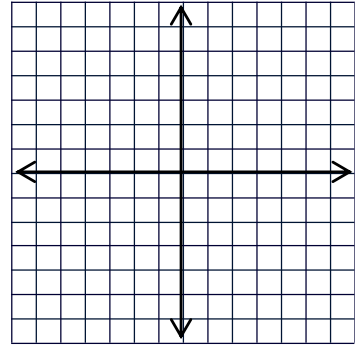
72)  $y = 4$



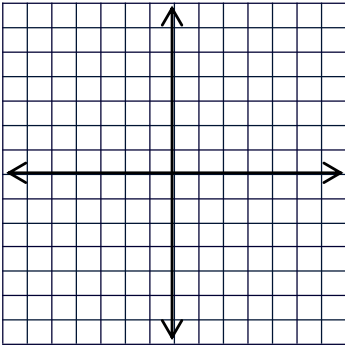
Domain:

Range:

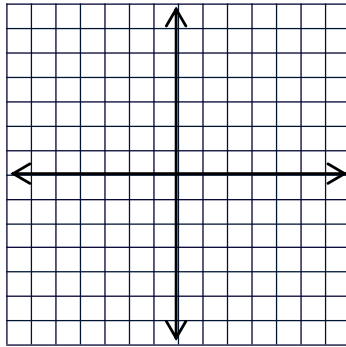
73)  $y - \frac{1}{2}x > 2$



74)  $2x - y \leq 3$   
 $x + y \leq 4$



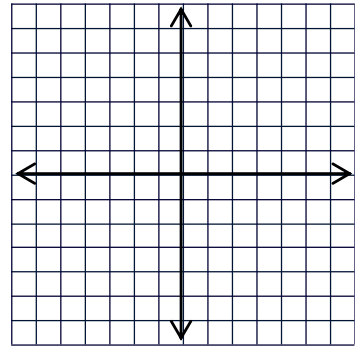
75)  $y = \frac{1}{x} + 3$



Domain:

Range:

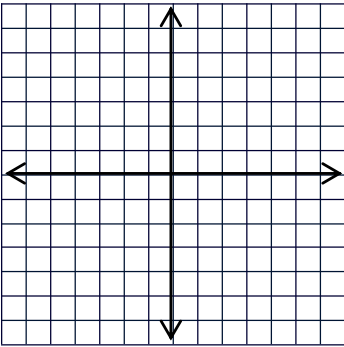
76)  $y = x^2 - 4x - 2$



Domain:

Range:

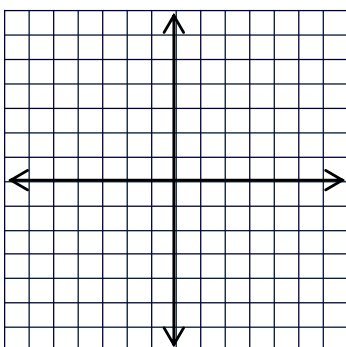
77)  $x = -1$



Domain:

Range:

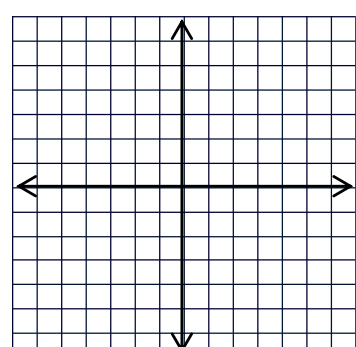
78)  $y = -\sqrt{x+3}$



Domain:

Range:

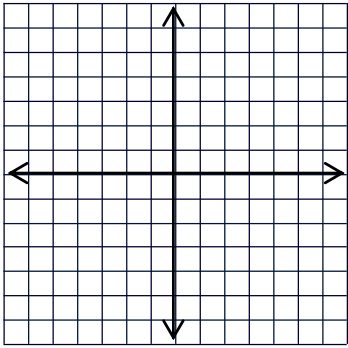
79)  $y = -2|x| + 3$



Domain:

Range:

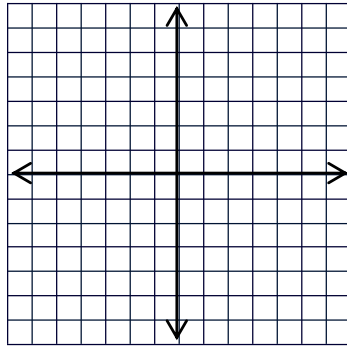
80)  $x = 4y - 8$



Domain:

Range:

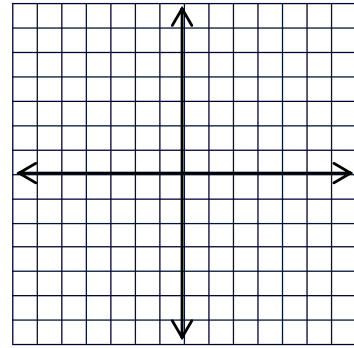
81)  $y = \frac{1}{x-3} + 4$



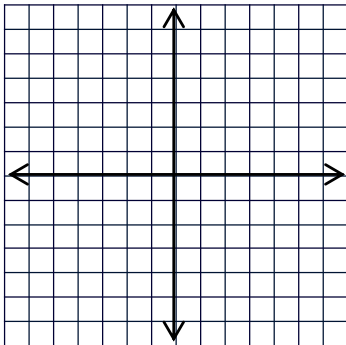
Domain:

Range:

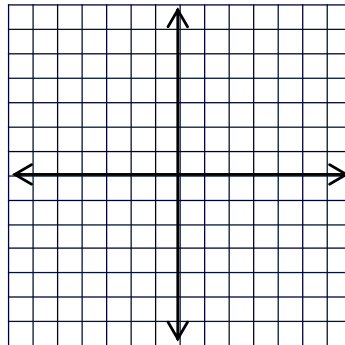
82)  $y > \frac{1}{2}x - 1$   
 $6x + y \leq -2$



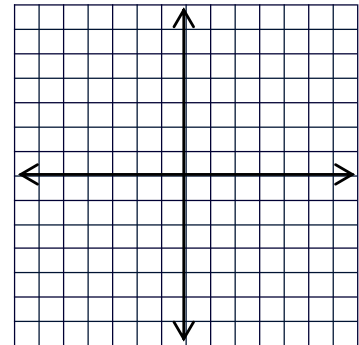
83)  $y = 2\sqrt{x} - 5$



84)  $y = \frac{1}{2}(x-2)^2 + 3$



85)  $y = 3\left(\frac{1}{2}\right)^x$



86) A girl throws a ball at a velocity of 32 ft/sec upward from the top of a 48 ft tall building. The equation that models this situation is  $h(t) = -16t^2 + 32t + 48$ .

- a) When will the ball hit the ground?
- b) When will the ball be at its maximum height?
- c) What is the maximum height of the ball?

87) Solve each equation for the indicated variable.

a.  $E = \frac{1}{2}mv^2$ , for  $v$

b.  $V = \pi r^2 h$ , for  $h$

c.  $P = \frac{1}{5}\sqrt{r}$ , for  $r$

88) Describe the following data set using measures of center, spread and shape.

# boxes of Cheerios Mr. Simon eats in various months: 6, 12, 4, 3, 15, 13, 7, 6, 4, 19, 2, 7, 6, 8, 5, 5, 11, 4