

Find the distance between:

1.  $(-3,0)$  and  $(4,-2)$       2.  $(11,-4)$  and  $(5,-13)$       3.  $(-1,-6)$  and  $(12,7)$
4. If the distance between two points is  $\sqrt{65}$  and the points are  $(9,-1)$  and  $(x,-8)$ , solve for  $x$ .

Write the equation of the circle in standard form. State the center and the radius.

5.  $x^2 + 6x + y^2 - 8y - 12 = 0$       6.  $x^2 + y^2 - 10x + 14y = -3$

Write the equation of the circle in expanded form.

7. Center:  $(5,-2)$ , Radius:  $\sqrt{7}$       8. Center:  $(9,4)$ , Area:  $8\pi$

Simplify.

9.  $\frac{2}{3} + \frac{3}{7}$       10.  $3\frac{1}{4} - 5\frac{7}{8}$       11.  $2\frac{1}{12} \cdot \frac{4}{5}$       12.  $-\frac{2}{9} \div 18$       13.  $\frac{1}{3} + \left(\frac{4}{5} \cdot \frac{3}{20}\right)$
14.  $\left(\frac{9}{40} \div \frac{1}{45}\right) - \frac{3}{4}$

Find the equation of the parabola with the given information and sketch a complete graph.

15. D:  $y = 6$ , F:  $(5,-2)$       16. D:  $x = -4$ , F:  $(6,7)$       17. V:  $(2,11)$ , F:  $(2,13)$       18. V:  $(-1,5)$ , D:  $x = 5$

Given the graph, find the equation of the parabola.

