

## FINDING THE EQUATION OF A QUADRATIC FUNCTION

**Find the equation of a parabola has the following x intercepts and passes through the point indicated:**

- 1)  $(-3,0)$  and  $(4,0)$  through  $(6, 2)$
- 2)  $(-12,0)$  and  $(-3,0)$  through  $(0, 5)$
- 3)  $(2,0)$  and  $(5,0)$  through  $(-4, 3)$
- 4)  $(-2,0)$  and  $(6,0)$  through  $(-5, -5)$
- 5)  $(1,0)$  and  $(7,0)$  through  $(0, -1)$
- 6)  $(5,0)$  and  $(-3, 0)$  through  $(-1, 4)$
  
- 7) Find the equation of a parabola that has a vertex of  $(-3,2)$  and contains the point  $(4,7)$ .
  
- 8) Find the equation of a parabola that has a vertex of  $(4,5)$  and contains the point  $(-2,-2)$ .
  
- 9) Find the equation of a parabola that has a vertex of  $(-2,-3)$  and contains the point  $(4,1)$ .
  
- 10) Find the equation of a parabola that has a vertex of  $(0,3)$  and passes the x axis at  $(7,0)$ .

- 11) Find the equation of a parabola that has a vertex of  $(3,-1)$  and has a y intercept of  $(0,-8)$ .
- 12) Find the equation of a parabola that has a vertex of  $(5,0)$  and has a y intercept of  $(0,-12)$ .
- 13) Find the equation of a parabola that passes through  $(1,6)$ ,  $(2,5)$  and  $(0,5)$ .
- 14) Find the equation of a parabola that passes through  $(0,6)$ ,  $(2,2)$  and  $(5,11)$ .
- 15) Find the equation of a parabola that passes through  $(3,-10)$ ,  $(4,0)$  and  $(6,8)$ .
- 16) Find the equation of a parabola that passes through  $(0,6)$ ,  $(-6,0)$  and  $(2,16)$ .