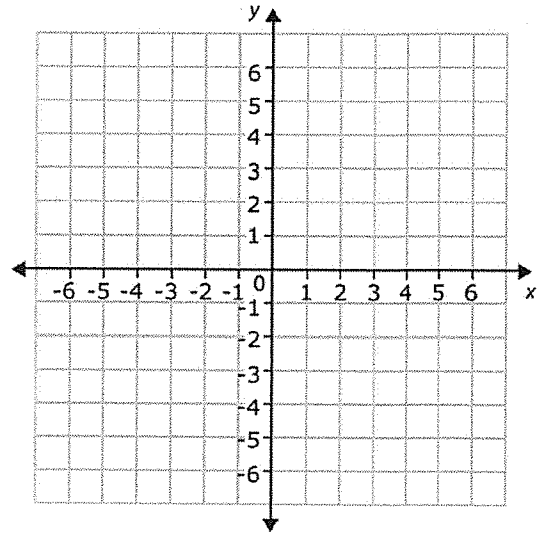


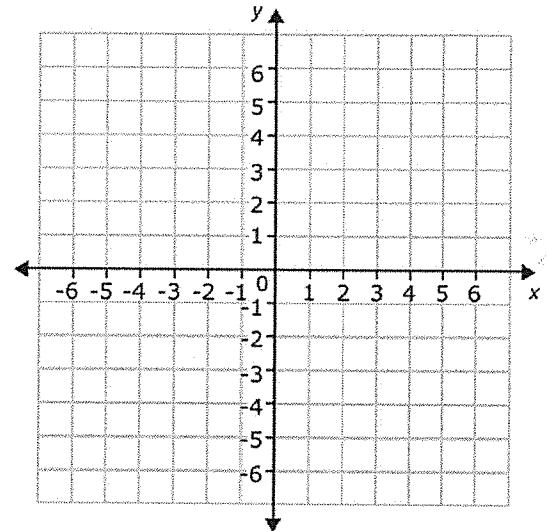
Parabolas (#44)

Find the roots, vertex, and line of symmetry for each parabola, then graph.

1.  $f(x) = x^2 + 2x + 1$

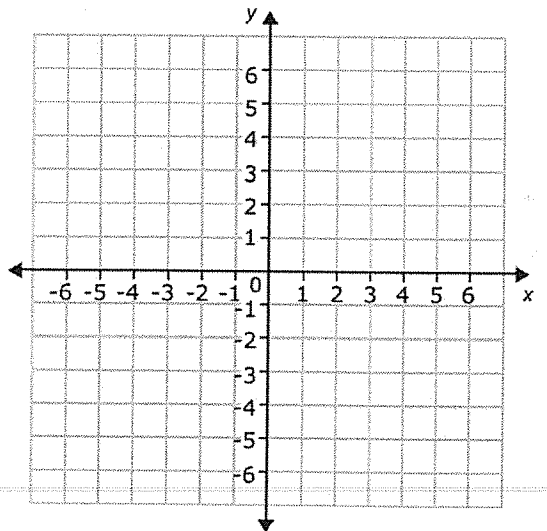


2.  $g(x) = (x + 2)^2 - 4$



3.  $f(x) = x^2 + 5x + 4$

4.  $g(x) = 3x^2 + 4x + 1$

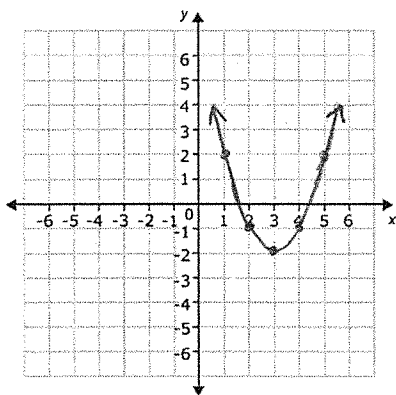


5.  $f(x) = (x + 1)^2 - 4$

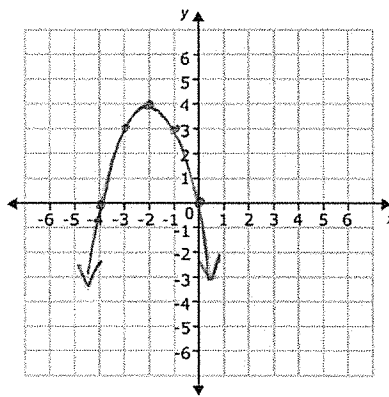
6.  $g(x) = -2(x - 1)^2 + 3$

Give the equation for each parabola in both vertex and standard form.

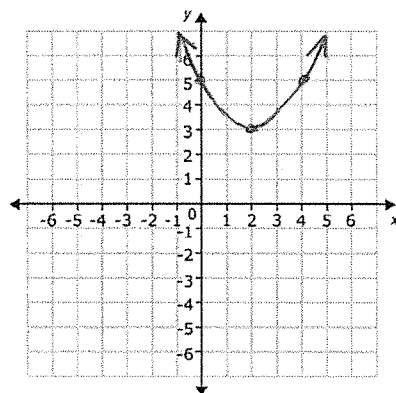
7.



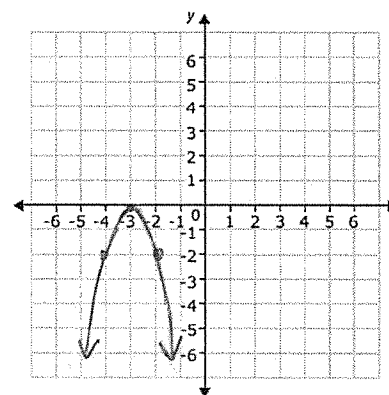
8.



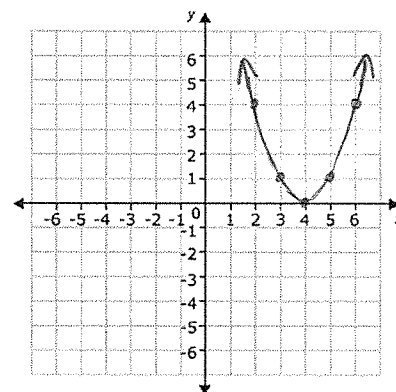
9.



10.



11.



12.

