

Find the equation of the linear function in all three forms that passes through the points  $(-4, -1)$  and  $(-9, 2)$ .

Find the vertex of the function without completing the square. Write the function in vertex form. Find the x-intercepts without using the quadratic formula.

$$f(x) = x^2 + 4x - 6$$

Write each function in vertex form by completing the square. Give the vertex.  
Find the x-intercepts by using the quadratic formula.

$$f(x) = 2x^2 + 6x + 7$$

$$g(x) = 5x^2 - 25x + 12$$

Find the equation of the quadratic function that has a vertex of  $(-2, 5)$  and passes through the point  $(1, 2)$ .