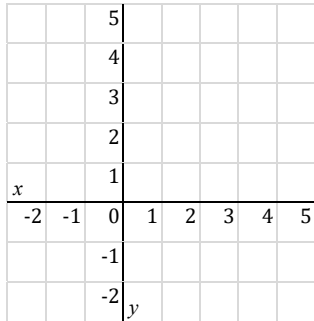


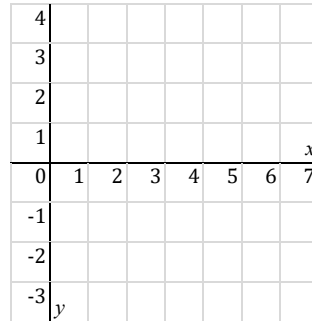
Quiz 124

Convert to vertex form, then graph.

1. $y = x^2 - 2x + 2$



2. $y = -\frac{1}{2}x^2 + 4x - 6$



3. A parabola has zeros at 2 and 6 and passes through the point (7, -5). What is the vertex of the parabola?

4. The parabola $y = x^2$ is scaled by 3, flipped over the x -axis, and shifted 4 units up. Find an equation of the transformed parabola in vertex form.

5. $h(t) = -16t^2 + 96t + 256$

A ball is thrown straight up from a height of 256 feet with an initial speed of 96 feet per second. The function above models its height h , in feet, after t seconds. When does the ball reach its maximum height?