

Find the coordinates of the vertex for the parabola defined by the given quadratic function.

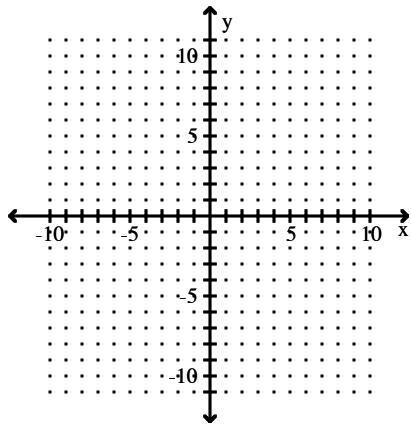
1) $f(x) = x^2 - 10x - 1$

Sketch the graph of the quadratic function. Identify the vertex, intercepts, and the equation for the axis of symmetry.

2) $f(x) = -x^2 + 2x + 8$

Vertex: _____ AOS: _____

x-Intercept(s): _____ y-Intercept: _____



Determine whether the given quadratic function has a minimum value or maximum value. Then find the coordinates of the minimum or maximum point.

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

4) $f(x) = -4x^2 + 8x$

Solve.

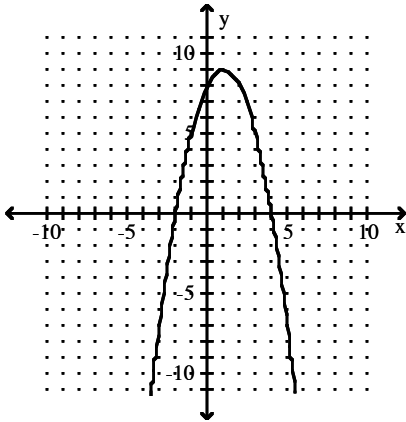
- 5) A person standing close to the edge on top of a 208-foot building throws a baseball vertically upward. The quadratic function $s(t) = -16t^2 + 64t + 208$ models the ball's height above the ground, $s(t)$, in feet, t seconds after it was thrown. How many seconds does it take until the ball finally hits the ground? Round to the nearest tenth of a second if necessary.

Answer Key

Testname: 13.3_PRACTICEPP

1) (5, -26)

2)



Vertex: (1, 9)

x-intercepts: (-2, 0) and (4, 0)

y-intercept: (0, 8)

axis of symmetry: $x = 1$

3) minimum; $(\frac{1}{4}, -\frac{25}{4})$

4) maximum; (1, 4)

5) 6.1 seconds