

Group Quiz 11 Chapter 6

1. Let $f(x) = -2x^2 - 4x + 3$ be a quadratic function written in standard form.

For parts (a-d) write equations that, if solved, would tell you the x -values that correspond to the given y -value:

(a) $y = 1$

(b) $y = 0$

(c) $y = 3$

(d) $y = -2$

- (e) Pick your favorite equation from the four above. Solve it, then use the information to find the vertex of the parabola.

2. Find the y -intercept and x -intercepts of $f(x) = 4x^3 - 12x^2 - 9x + 27$

3. Solve: $(x + 2)(x + 5) = 40$

4. A company's revenue can be modeled by the function: $r(t) = -0.07t^2 + 1.70t + 4.45$ where $r(t)$ represents the revenue (in millions of dollars) for the year that is t years since 1990.

(a) What was the company's revenue in 1990?

(b) When was the company's revenue at a maximum? What was the maximum revenue?