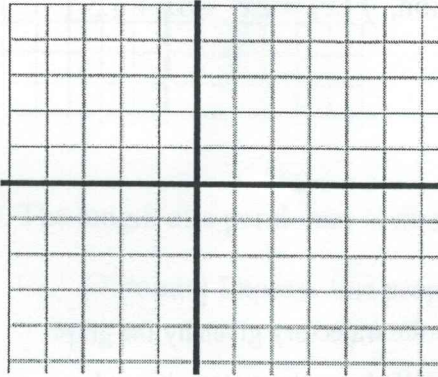


# Math 121G – Practice Exam 4

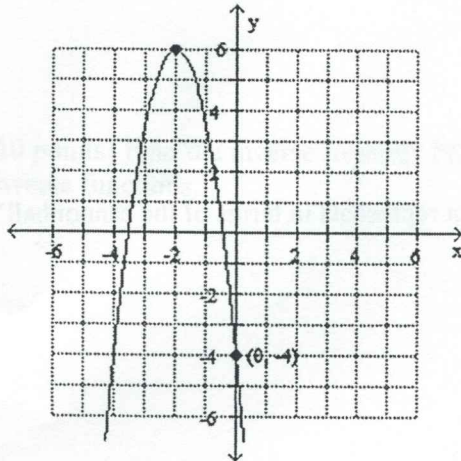
**Quadratic Formula:**  $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$

**Standard or Vertex form:**  $f(x) = a(x - h)^2 + k$

1. [8 points] Sketch the graph of the function,  $f(x) = .25(x - 6)(x + 2)$ . Include the vertex, the y-intercept, and any x-intercepts. Show work.



2. [8 points] Write an equation for the function shown. Show work.



3. [10 points] Given the quadratic equation:  $h(x) = -3x^2 + 12x - 3$ , complete the square and put the function in vertex form. Then write the ordered pair for the vertex.