Extra Credit Quiz   **Name:** _____

Due Thursday, July 29, 8:30 a.m.

Directions: Show all work for full credit. Do not use trial-and-error to find answers. Clearly indicate all answers. Simplify all mathematical expressions completely. This quiz grade will replace your lowest quiz grade. Each question is worth 12 points. **Work independently.** You may only ask the instructor for help on this assignment. Do not use a calculator.

1. Write the equation of the parabola that has a vertex of (-1, -4) and passes through the point (1, 8).

2. Find all points on the line $x = 2$ that are 6 units from the point (-1, 5).

3. A model rocket is projected straight upward from ground level according to $h=-\blacksquare t^2+\blacksquare t$, where h is the height of the rocket in feet t seconds after the rocket is launched. What is the maximum height of the rocket? After how many seconds does the rocket return to the ground?

4. Find two consecutive positive even integers such that their product is 528.