

No calculators are allowed on this quiz. Please read each question carefully, follow directions and clearly mark your solutions. **Show your work for full credit.**

1. Find the equation of the parabola that has vertex at (2,3) and passes through the point (0,9).

2. Your friend from high school found out that he can buy cheap fidget spinners from ebay and sell them on Amazon for profit. He estimates that his revenue is

$$R(x) = -2x^2 + 1200x - 150.$$

Can you find how many fidget spinners he should sell so that his revenue is maximized?