Station #1

Part 1: Complete the cross word puzzle using the clues below:

Across
2. the shape of the graph of a quadratic function
4. the lowest point on a parabola
5. the simplest form of a quadratic function
6. the highest or lowest point of a graph

Down
1. the highest point on a parabola
3. the fold or line that divides the parabola into two matching halves

Part 2:

Arrange the correct equation with its graph. Show your teacher when you have completed it.

Station #2

Use the y-intercept, the axis of symmetry, and the vertex to graph each of the following quadratics.

a. $y = x^2 + 4x + 3$

b. $y = 2x^2 + 4x - 5$

c. $y = -x^2 - 4x + 4$

Station #3

Solve each equation (Be sure to simplify the radical expressions as much as possible).

a. $3x^2 + 2 = 29$

b. $13p^2 - 3 = 4209$

c. $5m^2 + 9 = 14$

d. $9r^2 - 5 = 607$

e. $x^2 - 2 = 16$

f. $-x^2 - 4 = -24$

Station #4

Use the y-intercept, the axis of symmetry, and the vertex to graph each of the following quadratics.

a. $y = -2x^2 - 8x - 5$

b. $y = 3x^2 - 6x + 7$

c. $y = 4x^2 - 16x + 10$