***Pre-Calculus 11***

***Unit 4: Analyzing Quadratic Functions***

***Worksheet 4.5—Equivalent forms of the Equation of a Quadratic Function***

1. Find the value of c that will make each expression a perfect square trinomial.

a) b) c)

d) e) f)

2. Write each equation in standard form.

a) b) c)

d) e) f)

3. Write each equation in standard form.

a) b) c)

d) e) f)

4. Write each equation in standard form.

a) b) c)

d) e) f)

5. Write each equation in standard form.

a) b) c)

d) e) f)

6. Write each equation in standard form.

a) b) c)

7. State the maximum or minimum value of y and the value of x when it occurs.

a) b) c)

d) e) f)

8. a) Write in the form

b) State the coordinates of the vertex

c) State the equation of the axis of symmetry

d) State the *y*-intercept.

9. If has a minimum value 0, what conditions must be satisfied

by a, b, and c?

***Solutions***

1. a) 25 b) 49 c)

d) e) 0.36 f) 26.5225

2. a) b) c)

d) e) f)

3. a) b) c)

d) e) f)

4. a) b) c)

d) e) f)

5. a) b) c)

d) e) f)

6. a) b) c)

7. a) b) c)

d) e) f)

8. a) b) c) d)

9.