Chapter 4 Summary - Quadratic Equations

Use your notes, textbook and general knowledge to fill in the blanks.

Standard form of a quadratic function is $f(x) = ax^2 + bx + c$

_____ term _____ term _____ term

Steps to Graphing a Quadratic Equation:

1. Find the x-coordinate of the vertex using _____
2. Plug in the value from step 1 to find _____
3. Using the vertex as a reference point, make a _____
4. Sketch the graph through all _____

The line through the graph of a parabola that divides the graph into two congruent halves is called the _____ and its equation is always a _____ line. The y-coordinate of the vertex is the _____ value or the _____ value of the function. These values represent the _____ or _____ possible value the function can reach.

Quadratic _____ are quadratic functions that are set equal to a value. The standard form of a quadratic equation is $ax^2 + bx + c =$ _____. The solutions of a quadratic equation are called the _____ of the equation. A quadratic equation can have _____, _____, or _____ solutions. You can solve quadratic equations by graphing the function and finding the _____. You can also solve a

quadratic equation by factoring and using the _____.

When a quadratic equation cannot be factored, it can be solved using

_____ or

_____. To solve a quadratic equation by

_____, the coefficient on the x^2 term must be zero.

Irrational solutions will contain a _____ in the answer. Non-real

solutions will contain _____.

The _____ of the quadratic formula will determing the number and type of

solutions for the quadratic equation. This calculation is _____. Page

_____ in the textbook offers a summary of the methods for solving quadratic equations.

When a quadratic function is in the form $f(x) = a(x - h)^2 + k$, it is said to be in

_____ form, where *(h, k)* is the _____ and *(x, y)* is

_____. You can write your function from standard form to

_____ form by _____.

Quadratic inequalities can be solved by _____ or

_____. After finding the _____ of the related equation, you

must _____ points between the regions to find the solution ot the inequality.