

MA 114 - Reading Assignment 11 - Section 3.1 - Spring 2008

_____ 's my name, don't wear it out!

1. **True or False:** We call a function a quadratic function if $f(x) = ax^2 + bx + c$ for all real numbers a , b , and c .
2. What is the domain of a quadratic function. Express your answer in interval notation.

3. The graph of a quadratic function is called a _____.
4. The lowest or highest point of the graph of a quadratic function is called the _____.
5. The vertical line passing through this lowest or highest point is called the _____
_____.
6. What method is used to take a quadratic function of the form $f(x) = ax^2 + bx + c$ and put it into the form $f(x) = a(x - h)^2 + k$? _____ (See Example 1.)
7. What are the coordinates of the minimum point of the graph of the quadratic function $f(x) = 2x^2 + 6x - 1$? (See Example 2.)

8. What is the equation of the vertical line through the minimum point of the graph of $f(x) = 2x^2 + 6x - 1$?

9. Using the blue box on p. 154, determine how many x -intercepts the function $f(x) = 2x^2 + 6x - 1$ has without actually finding them.