Writing Assignment Section 3.1

1) A parabola that opens upward has its vertex at (1,2). Describe as much as you can about the parabola based on this information. Include in your discussion the number of x-intercepts (if any) for the parabola.

2) A. Describe how you would know from the solution to a quadratic equation whether the equation has any x intercepts or not. B. How many y-intercepts can a quadratic equation have? Explain your answer.

3) Considering what the graph of a quadratic function looks like, describe the point on the graph where a maximum function value occurs. What does the equation have to look like for a quadratic function to have a maximum function value? What is that point called?

4) Considering what the graph of a quadratic function looks like, describe the point on the graph where a minimum function value occurs. What does the equation have to look like for a quadratic function to have a minimum function value? What is that point called?

5) A rancher has 1000 feet of fencing to construct six corrals, as shown in the figure on page 271 question 69 of your textbook. Find the dimensions that maximize the enclosed area. What is the maximum area?