Section 14.7 #5, 9, 59, 60, 61.

From the optimization.pdf handout, do the rocket nose problem.

In the Discovery Project at the end of Section 14.7, do problems 1 and 2. For the graphing, you are welcome to use Mathematica or a calculator, of course, but consider attempting it by hand. Polar coordinates might help.

In the optimization.pdf handout, problem A lists five functions. For each one, compute the quadratic approximation at a critical point. (Here is a follow-up question, which you should not turn in, but which you should complete, as a way to improve your understanding: Is there a relationship between the quadratic approximation and the type of the critical point: minimum, maximum, saddle, or none of those?)