MAPLE ASSIGNMENT 3 HINTS

1. PROBLEM 1 (STEWART P.192)

For this problem, you only need maple for the graph.

Here are some hints for solving the problem:

- Assign the coordinates $(0,0)$ to P, as suggested. This *greatly* simplifies the problem of determining a, b, and c.
- Use the fact that $(0,0)$ lies on the graph of $f(x)$.
- Also use the fact that the slope of the tangent at $x = 0$ must match the slope of L_1.
- The y coordinate of Q is $f(100)$.

For the graph, determine a, b, and c, then find the equations of the lines L_1 and L_2. Use the maple **piecewise** function to define a single function (or, alternatively, paste together three graphs over their appropriate intervals on the x-axis).

2. PROBLEM 2 (STEWART P.254)

Again, you don't really need maple for the first part. Take the polynomial $P(x)$ and find its first and second derivatives (you don't need to know A,B, and C for this). What do you get when you evaluate these at $a = 0$? Also evaluate f and its first two derivatives at $x = a$ and use the conditions $i) - iii)$.

Use maple for part 2.