MTH 141 Spring 2009 Maple Assignment 1

The first Maple assignment is for getting you to feel at home with Maple. Start a new Maple worksheet and do the following steps. All answers should be produced with the help of Maple commands. Precede each answer with a comment in *text mode*.

1. In text mode, type your name, section, name of your instructor, due date for assignment.

2. In Math mode, enter the polynomial

$$x^4 - 4\,x^3 - 3\,x^2 + 14\,x + 12$$

   and assign it to a symbol, say p;

3. Factor the polynomial p.

4. Find the zeros of the polynomial p by solving an equation. Give the zeros in exact form and in decimal form.

5. In text mode, compare the answers in parts 3 and 4, explain how one could get the answer to part 4 from the answer to part 3.

6. plot the polynomial p over the interval $-3 \leq x \leq 4$. Look up Maple's *help* and label the axes as x and y.

7. Comment on the answer in step 4 in connection with the plot.