QUIZ 6 - MATH 102 YOUR NAME:

Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

- 1. A rectangular box has length x centimeters. Its width is two more than half its length and its height is twice its length.
 - (a) Make a sketch of the box and note the dimensions stated in the problem.

(b) Write down a formula for the function V(x) giving the volume of the box as a function of its length x.

- 2. Factor the following polynomials:
 - (a) $6x^3 50x^2 + 16x =$
 - (b) $16x^2y 80xy + 100y =$