Math 160 Quiz 6 Name: _____

July 16, 2003

Show all work for credit.

Leave all answers as exact answers unless otherwise stated.

1. A picture (without frame) is 24 inches by 16 inches. Around it is a frame of uniform width on all sides. If the surface area of the frame is two thirds the surface area of the picture, how wide is the frame?

2. Find one factor of the following polynomial, and use long division to write the polynomial as the product of the factor and a polynomial. $p(x) = x^3 - 2x^2 - 5x - 12$

3. Find all the local maximum of $f(x) = 3x^4 - 68x^3 + 360x + 15$