

July 25, 2002

This quiz is worth 10 points. Show all work for credit.

1. Find a polynomial  $P(x)$  such that  $P(x)$  is a quadratic with zeros at 4 and 2 and  $P(5) = 2$ .

2. Solve Algebraically:

(a)  $1 + \sqrt{2x} - \sqrt{x+7} = 0$

(b)  $3x^{\frac{1}{4}}(x+3)^{\frac{-2}{3}} - 4x^{\frac{-3}{4}}(x+3)^{\frac{1}{3}} = 0$

3. Give the End-Behavior Model of  $(x^2 + 3)(5x^3 + 7)$ .

4. (Bonus) If box A is 15% bigger than box B, how much smaller is box B than box A?