

July 22, 2003

Show all work for credit.

Leave all answers as exact answers unless otherwise stated.

1. Solve algebraically or  $x$ :

$$(a) \frac{5}{3}x^{2/3}(1-x)^{3/4} - \frac{3}{4}x^{5/3}(1-x)^{-1/4} = 0$$

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

2. Box A is 5% larger than box B. How much smaller is box B than box A?

3. A company's stock went up 7% one day, down 10% the next day, down 16% the third day, and down 7% the fourth day. What was the average change over the four days?

4. (Bonus) Why should you be given a bonus point?