

MAC1147 Fall 2014

Quiz 3

Name: \_\_\_\_\_

UFID: \_\_\_\_\_

Solve 3 of 5 questions below in order to get your full mark. Please notice that the difficulty of each question depends on how students handle it. I only consider 3 questions for your final grade. Using calculators are forbidden and will be considered as an act of cheating. You have 15 minutes for this quiz. Good luck to all of you!

1 Solve the inequality then graph the solution set.

$$6x - 4 \leq 2 + 8x \quad (1)$$

2 Find the interval on real number line for which the radicand is nonnegative

$$\sqrt[4]{-2x + 15} \quad (2)$$

3 Solve the inequality then graph the solution set.

$$3 | 2 - 5x | \leq 9 \quad (3)$$

4 The side of a square is measured as 10.4 inches with a possible error of  $\frac{1}{16}$  inch .Using these measurements,determine the interval containing the possible areas of the square.

5 Simplify the expression

$$\frac{(6x + 1)^3(27x^2 + 2) - (9x^3 + 2x)(3)(6x + 1)^2(6)}{((6x + 1)^3)^2} \quad (4)$$