

MAC1147 Fall 2014

Quiz 4

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!

Find equation of the line passing through point (3,-2) and perpendicular to the line  $6y - 3x + 2 = 0$ .

Find the value of m for which the lines  $mx + 3y = -3$  and  $2x + (m + 1)y = 2$  are parallels.

Find all real values of x such that  $f(x) = 0$ .

$$f(x) = x^3 - x^2 - 4x + 4 \tag{1}$$

Hint : You need first to factor above expression in an appropriate way.

For what value of  $m$  the set of ordered pairs define a function.

$$\{(2, 3), (-1, 4), (3, -5), (2m - 4, 3), (1, 7)\} \quad (2)$$

Find the domain of function  $f(x)$ .

$$f(x) = \frac{\sqrt{|2x - 1|}}{x^2 + x + 1} \quad (3)$$

Hint : This is a tricky question be careful!