

Math 1140F - Fall 2014  
Quiz 1

Name: \_\_\_\_\_  
Group Members: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

You may work in groups of 2-4. Leave answers in exact form and in set notation where appropriate..

1. (2 points) Evaluate  $\frac{4x^3-3x^2-8x+4}{x-2}$ . Be sure to write your final answer in a polynomial form.

2. (2 points) Fully and *clearly* derive the quadratic equation.

3. (2 points) Solve  $\sqrt{10+3\sqrt{x}} = \sqrt{x}$  in  $\mathbb{R}$ .

4. (2 points) Solve  $x + \sqrt{x} = 20$  in  $\mathbb{R}$ .

5. (2 points) Solve  $2x^2 - 3x = 1$  in  $\mathbb{R}$  by completing the square.