

Math 156 PRECALCULUS  
Fall 2015

**Quiz 2 – Retake**

Tuesday, September 12, 2015

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

This quiz has 8 problems worth a total of 30 points. It is TWO SIDED.

1. (4 points) Simplify the compound fractional expression:  $\frac{1 + \frac{1}{x+3}}{1 - \frac{1}{x+3}}$ .

Answer: \_\_\_\_\_

2. (4 points) Simplify the rational expression  $\frac{y^2-2y}{y^2-4}$ .

Answer: \_\_\_\_\_

3. (4 points) Find the domain of  $\frac{2}{\sqrt{5-t}}$ .

Answer: \_\_\_\_\_

4. (4 points) Find all real solutions of the equation  $x^2 = \frac{3}{4}x - \frac{1}{8}$  by completing the square.

Answer: \_\_\_\_\_

5. (3 points) Find all real solutions to  $|17 - 2x| = 5$ .

Answer: \_\_\_\_\_

6. (4 points) Find all real solutions to  $x + \sqrt{4x + 5} = 4$ .

Answer: \_\_\_\_\_

7. (4 points) A pasture is eight times longer than it is wide. Its area is 7200 square feet. How wide is the pasture?

Answer: \_\_\_\_\_

8. (3 points) Simplify the expression  $\sqrt{18a^2 + 36a^3}$ , assume  $a > 0$ .

Answer: \_\_\_\_\_