

**Math 112 (Fall 2009)      Quiz 6 (20 points)**

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

Discussion      11:00      12:05

1. (10 points) Sketch the graph of

$$f(x) = \begin{cases} \sqrt{x} & 0 < x < 4 \\ \sqrt{1-x^2} & -1 \leq x < 0 \end{cases}$$

What is the domain and range of this function? Give your answer in interval notation.

2. (10 points) Let  $f(x) = \sqrt{x-2}$  and  $g(x) = \frac{1}{x^2-1}$ .

- Compute  $(f \circ g)(x)$
- Give the domain of  $(f \circ g)(x)$  in interval notation