

**Math 111 Quiz #2**  
**April 13, 2010**

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

Show all work and answers on a separate sheet with a box around your final answer. No calculators.

1. Suppose  $f(x) = \frac{1}{\sqrt{1-x}}$ .

(a) (2 pts.) Find  $f(-3)$ .

(c) (2 pts.) Find the value(s) of  $x$  for which  $f(x) = \frac{1}{4}$ .

(b) (2 pts.) Find the domain of  $f$ .

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2. Suppose  $g(x) = \begin{cases} 1-x & \text{if } x \leq 1 \\ 2 & \text{if } x > 1 \end{cases}$

(a) (2 pts.) Sketch  $g(x)$  on a nice set of axes with a well-labeled scale.

(b) (2 pts.) Find  $g(x)$  when  $x = -5$ .