

Quiz #1

Math 1100-05, Fall 2005

(5 points) **Problem 1.** (a) Decide whether the equation

$$y^2 = x^2 - 1$$

defines y as a function of x .

(b) Find the inverse of the function $f(x) = \sqrt{x^2 - 1}$, $x \geq 1$.

(5 points) **Problem 2.** Find the limits:

(a) $\lim_{x \rightarrow 2} \frac{\sqrt{x+1}}{x-1} =$

(b) $\lim_{x \rightarrow 1} \frac{x^2 - 1}{x - 1} =$