


$$\{\max\{|x|, |y|\} = 1\}$$

 f

$$\{x^2 + y^2 = 1\}$$

$$f(x, y) = \left(\frac{x}{\sqrt{x^2 + y^2}}, \frac{y}{\sqrt{x^2 + y^2}} \right)$$

$$f^{-1}(x, y) = \left(\frac{x}{\max\{|x|, |y|\}}, \frac{y}{\max\{|x|, |y|\}} \right)$$