

$$f(x) = 3x - 1$$

$$y = 3x - 1$$



## FUNCTION

FOR EVERY POINT  $(x, y)$   
THERE IS ONLY ONE  $z$

$$\begin{matrix} (0, -3, 0) \\ x \quad y \quad z \\ \equiv \end{matrix}$$

$$\begin{matrix} (0, 3, 0) \\ x \quad y \quad z \\ \equiv \end{matrix}$$

## EASIER DEF

IF YOU HAVE ONE  
OF THE FOLLOWING

IT IS NOT A FUNCTION:

$$z^2, z^4, z^{\text{EVEN POWER}}$$

$$|z|, \pm \text{---}$$

$$1. \quad xz^4 + \ln x - xy = 3$$

NOT A FUNCTION

$$2. \quad x^2z + xyz - y = 0$$

FUNCTION

$$3. \quad f(x, y) = x^2y - 3x$$

$$a) \quad f\left(\begin{matrix} 4 \\ x \end{matrix}, \begin{matrix} 2 \\ y \end{matrix}\right) = (4)^2(2) - 3(4)$$

$$= 16(2) - 12$$

$$= 32 - 12$$

$$= \textcircled{20}$$

$$b) \quad f\left(\begin{matrix} 1 \\ x \end{matrix}, \begin{matrix} -2 \\ y \end{matrix}\right) = (1)^2(-2) - 3(1)$$

$$= -2 - 3$$

$$= \textcircled{-5}$$

$$c) \quad f\left(\begin{matrix} 0 \\ x \end{matrix}, \begin{matrix} t \\ y \end{matrix}\right) = (0)^2(t) - 3(0)$$

$$= \textcircled{0}$$