

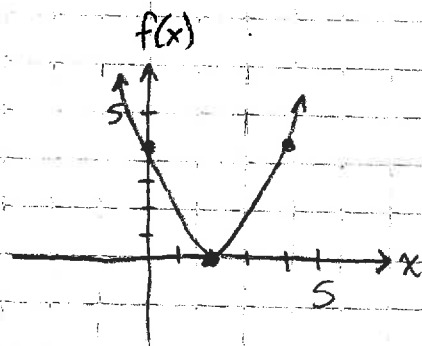
## V. Domain and Range

### A. Definition

The set of all inputs (that have an output) is called its DOMAIN.

The set of all possible outputs is called the RANGE.

Ex1



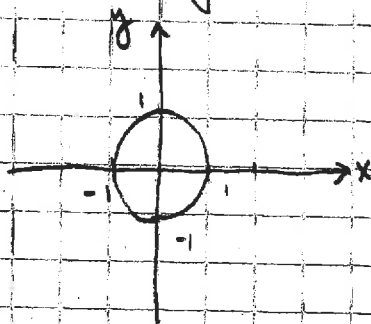
Domain: All real numbers

Range:  $f(x) \geq 0$

$$y \geq 0$$

Ex2

$$x^2 + y^2 = 1 \quad (\text{Note: Not a function!})$$

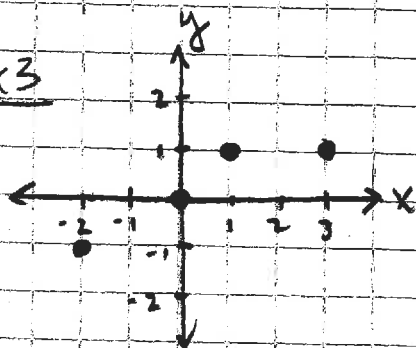


Domain:  $-1 \leq x \leq 1$  ← All possible inputs

Range:  $-1 \leq y \leq 1$  ← All possible outputs

separate points

Ex3



Domain:  $\{-2, 0, 1, 3\}$

Range:  $\{-1, 0, 1\}$