

## Sets

A set is an unordered collection of objects without repetition

Sets can be described by their members (elements)

Example:  $\{1, 3, 5, 7\}$

An ellipsis can be used to subject

Infinite Set :  $\{1, 3, 5, 7, \dots\}$

When  $S$  is a set and  $X$  is a member of  $S$ , we can write  $X \in S$  to indicate that  $X$  is a member of  $S$

$y \notin S$  means that  $y$  is **not** a member of  $S$

$3 \in \{1, 2, 3\}$

$9 \notin \{1, 2, 3\}$

## Set Builder Notation

$\{x/x\}$