

Definitions

Set: a collection of elements. Denoted by E

Membership: elements belong to a set, $a \in A$

Empty Set: set containing no elements, \emptyset

Subset: set containing some but not all elements of a greater set, denoted $B \subseteq A$ (B subset of A). Empty set is a subset of all sets.

Equality: sets of identical elements are said to be equal.

$A = B$ if and only if $A \subseteq B$ and $B \subseteq A$.

Operations

$A \cup B$: Union of A and B , set of all elements in either A or B .

$A \cap B$: Intersection of A and B , set of all elements in both A and B .

$A - B$: Difference of A and B , set of elements in A and not in B .

Properties: