- $(A \cup B) \cup C = A \cup (B \cup C)$
- $(A \cap B) \cap C = A \cap (B \cap C)$

Exp-

A = {1, 2}, B = {2, 3}, C = {3, 4} (A \cup B) \cup C = {1, 2, 3, 4} = A \cup (B \cup C) (A \cap B) \cap C = Ø = A \cap (B \cap C)

3. Distributive Property: The distribution of a set operation over another set operation results in an equivalent expression.



4. Identity Property: The union of a set with the empty set is the set itself, and the intersection of a set with the universal set is the set itself.

• $A \cup Ø = A$

• A ∩ U = A

Exp-

A = {1, 2, 3}

 $A \cup \emptyset = \{1, 2, 3\} = A$

 $A \cap U = \{1, 2, 3\} = A$