

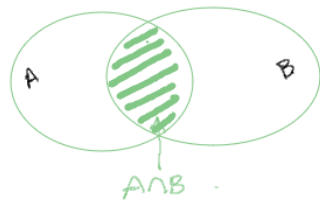
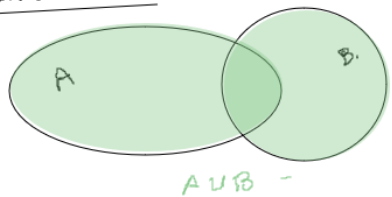
Définition

Un ensemble A est une collection d'objets a (éléments)

$a \in A$; $a \notin A$; ϕ : ensemble vide.

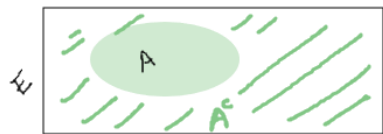
Union : $A \cup B = \{x : x \in A \text{ ou } x \in B\}$.

Intersection : $A \cap B = \{x : x \in A \text{ et } x \in B\}$.



Complémentaire :

$$A^c = C_E^A = \{x \in E : x \notin A\}$$



Produit de A et B -

$$A \times B = \{(a, b) : a \in A \text{ et } b \in B\}$$

Ordre :

$$A \subset B \Leftrightarrow (\forall x \in A \Rightarrow x \in B)$$

$$A \subset B \text{ et } B \subset C \Rightarrow A \subset C$$

$$\phi \subset A$$

Ensembles

Ex : $A = \{1, 2, 3\}$

$$B = \{2, 4, 5\}$$

$$C = \{7\}$$

$$A \cup B = \{1, 2, 3, 4, 5\}$$

$$E = A \cup B \cup C = \{1, 2, 3, 4, 5, 7\}$$

$$A \cap B = \{2\}$$

$$A \cap C = \phi$$

$$A \cap B = \phi$$

$$C_E^C = \{1, 2, 3, 4, 5\}$$

$$A \cap B \cap C = \phi$$

$$C_E^A = \{4, 5, 7\}$$

$$C_A^A = \phi$$

$$A \times C = \{(1, 7), (2, 7), (3, 7)\}$$

$$C \times B = \{(7, 2), (7, 4), (7, 5)\}$$

$$C \not\subset A ; C \not\subset B$$

$$A \cap B \subset A ; A \cap B \subset B$$