Ex: $F \cap \{Bob, Joe\} = \{\}$

$\phi := \{\}$ ← empty/null set

If; A, B have infinite elements then can :

$\therefore A \cap B = \phi \rightarrow$ TRUE

$A = \{2, 4, 6, \ldots\}$

$B = \{1, 3, 5, \ldots\}$

As, they dont share anything in common, so, if

$\therefore A \cap B = \phi$

$\Rightarrow$ A, B are Mutually Exclusive or Disjoined.

Ex: $\phi \notin F \rightarrow$ TRUE ← vacuously true

$\phi \in F \rightarrow$ FALSE

$\phi \in F \rightarrow$ TRUE

empty sets is a subset of every set.

* Set Subtraction :-

$\therefore F \setminus M = \{Jane, Mary, Susan\}$

all elements in F except those elements of M