

$$M \setminus F = \{ \text{Bob, Joe, Max} \}$$

↳ not the same as  $F \setminus M$

Q: if,

$$A \cap B = \emptyset \text{ then,}$$

$$A \setminus B = A \text{ and } B \setminus A = B$$

$$\hookrightarrow A \subseteq B \rightarrow A \setminus B = \emptyset$$

if,

$$A \setminus B = \emptyset \text{ then } A \cap B = A$$

Null Set:

$$\left\{ \begin{array}{l} \emptyset \setminus \emptyset = \emptyset \\ \emptyset \cap \emptyset = \emptyset \\ \emptyset \cup \emptyset = \emptyset \end{array} \right\}$$

\* Set Building Notation:-

$$E := \{ \text{such that } n \in \mathbb{Z} \} \quad \begin{array}{l} \text{such that} \\ n \text{ is an integer} \end{array}$$

$$= \{ \dots, -6, -4, -2, 0, 2, 4, 6, \dots \}$$

∴ "E is a new set with element an such that n is an integer"

\* Power Set:-

The power set is the set of all possible subsets of the given sets.