

Difference between belongs to and subset :

$$A = \{1, 2, 3, \{4\}, 5, 6\}$$

Belongs to

$$1 \in A$$

$$2 \in A$$

$$3 \in A$$

$$A \notin A$$

$$\{4\} \in A$$

$$5 \in A$$

$$6 \in A$$

Subset

$$\{1\} \subseteq A$$

$$\{2\} \subseteq A$$

$$\{3\} \subseteq A$$

$$\{4\} \not\subseteq A$$

$$\{\{4\}\} \subseteq A$$

$$\{5\} \subseteq A$$

$$\{6\} \subseteq A$$

Elements present in a particular set belongs to

~~to~~ that set.

i) If $A \in B$ and $B \subset C$, then $A \in C$

If $A \in B$

$2 \in \{1, 2\}$

and $B \subset C$

$\{1, 2\} \subset \{1, 2, 3\}$

then $A \in C$

$2 \in \{1, 2, 3\}$

True