

(h) If  $A \subset B$  and  $B \in C$ , then  $B \subset C$ .

If  $A \subset B$

$$\begin{array}{c} A \\ \{1, 2\} \subset \end{array} \begin{array}{c} B \\ \{1, 2, 3\} \end{array}$$

and  $B \in C$

$$\begin{array}{c} B \\ \{1, 2, 3\} \in \end{array} \begin{array}{c} C \\ \{\{1, 2, 3\}, \{4, 5\}\} \end{array}$$

then  $B \not\subset C$

$$\{1, 2, 3\} \not\subset \{\{1, 2, 3\}, \{4, 5\}\}$$

$h = \text{False}$ .

(i) If  $A \subset B$  and  $B \subseteq C$  then  $A \subset C$

If  $A \subset B$

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

and  $B \subseteq C$

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

~~$$\text{Then } \{1, 2\} \subset \{1, 2\}$$~~

Then  $A \subset C$

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

(i) is True