

$$(1) \bar{A} = A \downarrow A$$

$$A+B = (A \downarrow B) \downarrow (A \downarrow B)$$

$$AB = (A \downarrow A) \downarrow (B \downarrow B)$$

$$A \downarrow B = \overline{A+B} = \bar{A}\bar{B}$$

$$\bar{A} = \overline{A+A} = (\bar{A}) + (\bar{A}) \quad \left\{ \begin{array}{l} A+B = (\bar{A}+B) + (\bar{A}+B) \\ A+B = (A+\bar{B}) \\ A+B = A+B \end{array} \right.$$

$$\bar{\bar{A}} = A$$

$$A+B = (A+\bar{B})$$

$$A+B = A+B$$

$$AB = (\overline{A+A}) + (\overline{B+B})$$

$$AB = (\bar{\bar{A}}\bar{\bar{A}}) + (\bar{\bar{B}}\bar{\bar{B}})$$

$$AB = (\bar{A}) + (\bar{B})$$

$$AB = \overline{A+B}$$

$$AB = \bar{A}\bar{B}$$

$$AB = AB$$