

$$(6) \quad (\overline{A} + \overline{B}) \cdot (\overline{A}B + C\overline{D})$$

$$(\overline{A} \cdot \overline{B}) (\overline{A}B + C\overline{D})$$

$$(\overline{A} \cdot B) (\overline{A} + \overline{B}) \cdot (\overline{C} + \overline{D})$$

$$\overline{A}B (\overline{A}\overline{C} + \overline{A}\overline{D} + \overline{B}\overline{C} + \overline{B}\overline{D})$$

$$\overline{A}B\overline{C} + \overline{A}B\overline{D} + \overline{A}\overline{B}\overline{C} + \overline{A}\overline{B}\overline{D}$$

$$\boxed{\overline{A}B\overline{C} + \overline{A}B\overline{D}}$$

$$(7) \quad A\overline{B} + AC + BCD + D$$

$$A\overline{B} + AC + D(B\overline{C} + 1)$$

$$A\overline{B} + AC + D$$

$$(8) \quad \overline{A} + \overline{A}B + B\overline{C}\overline{D} + B\overline{D}$$

$$\overline{A}(1 + B) + \overline{D}B(\overline{C} + 1)$$

$$\boxed{\overline{A} + \overline{D}B}$$