



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

$$= A \cdot (\overline{B} \cdot B \cdot C + \overline{B} \cdot C \cdot \overline{C}) = A \cdot (0 \cdot C + \overline{B} \cdot 0) = A \cdot 0 = 0$$

| A | B | C | $\overline{A}$ | B+C | $\overline{B+C}$ | $\overline{A} + \overline{B+C}$ | $\overline{\overline{A} + \overline{B+C}}$ | $\otimes = \overline{B+C}$ |
|---|---|---|----------------|-----|------------------|---------------------------------|--|----------------------------|
| 0 | 0 | 0 | 1              | 0   | 1                | 1                               | 0  | 0                          |
| 0 | 0 | 1 | 1              | 1   | 0                | 1                               | 0  | 0                          |
| 0 | 1 | 0 | 1              | 1   | 0                | 1                               | 0  | 0                          |
| 0 | 1 | 1 | 1              | 1   | 0                | 1                               | 0  | 0                          |
| 1 | 0 | 0 | 0              | 0   | 1                | 1                               | 0  | 0                          |
| 1 | 0 | 1 | 0              | 1   | 0                | 0                               | 1  | 0                          |
| 1 | 1 | 0 | 0              | 1   | 0                | 0                               | 1  | 0                          |
| 1 | 1 | 1 | 0              | 1   | 0                | 0                               | 1  | 0                          |