

K-Map

A \ BC	00	01	11	10
0	1	1	1	1
1	1	0	0	0

$$\bar{A}\bar{B}\bar{C} + \bar{A}\bar{B}C + \bar{A}B\bar{C} + \bar{A}B\bar{C} + \bar{A}B\bar{C} + \bar{A}B\bar{C}$$

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

$$\bar{A}\bar{B} + \bar{A}B\bar{C} + \bar{A}B\bar{C} + \bar{B}\bar{C}$$

$$\bar{A}\bar{B}\bar{C} + \bar{A}B\bar{C} + \bar{A}B\bar{C} + \bar{A}B\bar{C} + \bar{A}B\bar{C} + \bar{A}B\bar{C}$$

$$\bar{A}\bar{B}(\bar{C}+C) + \bar{A}B + \bar{B}\bar{C}(1)$$

$$\bar{A}\bar{B} + \bar{A}B + \bar{B}\bar{C}$$

$$\bar{A} + \bar{B}\bar{C}$$

A	B	C	AB	\overline{AB}	AC	\overline{AC}	X	$\overline{A}\overline{B}C$	Result
0	0	0	0	1	0	1	1	0	1
0	0	1	0	1	0	1	1	1	1
0	1	0	0	1	0	1	1	0	1
0	1	1	0	1	0	1	1	0	1
1	0	0	0	1	0	1	1	0	1
1	0	1	0	1	1	0	0	0	0
1	1	0	1	0	0	1	0	0	0
1	1	1	1	0	1	0	0	0	0

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

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

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

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

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

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