

Упрощение л. ПК / ЭМН

1. $\bar{x}_1 \vee \bar{x}_2$

x_1	x_2	x_1	x_2	x_1	x_2
0	0	1	1	1	1
0	1	1	0	1	0
1	0	0	1	0	1
1	1	0	0	0	0

2. $(x \vee y) \rightarrow (x \wedge \bar{y} \vee x \rightarrow \bar{y})$

x	y	x	\bar{y}	1	2	3	4
0	0	1	1	0	0	1	1
0	1	1	0	1	0	1	0
1	0	0	1	1	1	1	1
1	1	0	0	1	0	0	1

1. $x + y$

2. $x \cdot \bar{y}$

3. $\textcircled{2} + \bar{x}$

4. $\textcircled{3} \rightarrow \bar{y}$

3. $(x_1 \wedge x_2) \vee x_3 = (x_1 \cdot x_2) + x_3$

x_1	x_2	x_3	$x_1 \cdot x_2$	$\textcircled{1} + x_3$
0	0	0	0	0
0	0	1	0	1
0	1	0	0	0
0	1	1	0	1
1	0	0	0	0
1	0	1	0	1

Установить Н. ПК1 ЭМН

4. $x \wedge \bar{y} \rightarrow (y \vee \bar{x} \rightarrow z)$

x	y	z	\bar{x}	$y \vee \bar{x}$	$z \rightarrow y$	$x \wedge \bar{y}$	z
0	0	0	1	1	1	0	1
0	0	1	1	1	0	0	1
0	1	0	1	1	1	0	1
0	1	1	1	1	0	0	1
1	0	0	0	0	1	1	1
1	0	1	0	0	0	1	1
1	1	0	0	1	1	0	1
1	1	1	0	1	0	0	1

5. $(x_1 \rightarrow x_2) \rightarrow (x_1 \vee x_2 \wedge x_3)$

x_1	x_2	x_3	$x_1 \rightarrow x_2$	$x_1 \vee x_2$	$x_1 \vee x_2 \wedge x_3$	x_3	$1 \rightarrow$
0	0	0	1	0	1	1	1
0	0	1	1	0	1	0	0
0	1	0	1	1	0	1	0
0	1	1	1	1	0	0	0
1	0	0	1	1	0	1	0
1	0	1	1	1	0	0	0
1	1	0	0	1	0	1	0
1	1	1	0	1	0	0	1

Универсальная ПРК ЭМН

6. $(\neg \forall x \exists y (x \rightarrow y)) \rightarrow (\exists x (x \rightarrow \forall y (y \rightarrow x)))$

x	y	z	x	1	2	3	4
0	0	0	0	1	1	1	1
0	0	0	1	1	0	1	1
0	0	1	0	1	1	1	1
0	0	1	1	1	0	1	1
0	1	0	0	1	1	1	1
0	1	0	1	1	0	0	0
0	1	1	0	1	1	1	1