

Упрощение СДНФ (4 переменные)

Упростить совершенную дизъюнктивную нормальную форму.

Задача 18.1.

8

$$\bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}zw \vee \bar{x}yz\bar{w} \vee \bar{x}yzw \vee x\bar{y}z\bar{w} \vee x\bar{y}zw \vee xyz\bar{w} \vee xyzw$$

Задача 18.2.

8

$$\bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}zw \vee \bar{x}yz\bar{w} \vee \bar{x}yzw \vee x\bar{y}z\bar{w} \vee x\bar{y}zw \vee xyz\bar{w} \vee xyzw$$

Задача 18.3.

8

$$\bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}zw \vee \bar{x}yz\bar{w} \vee \bar{x}yzw \vee x\bar{y}z\bar{w} \vee x\bar{y}zw \vee xyz\bar{w} \vee xyzw$$

Задача 18.4.

8

$$\bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}zw \vee \bar{x}yz\bar{w} \vee \bar{x}yzw \vee xyz\bar{w} \vee xyzw$$

Задача 18.5.

8

$$\bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}zw \vee \bar{x}yz\bar{w} \vee \bar{x}yzw \vee x\bar{y}z\bar{w} \vee x\bar{y}zw \vee xyz\bar{w} \vee xyzw$$

Задача 18.6.

8

$$x\bar{y}z\bar{w} \vee x\bar{y}z\bar{w} \vee xyz\bar{w}$$

Задача 18.7.

8

$$\bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}zw \vee \bar{x}yz\bar{w} \vee \bar{x}yzw \vee x\bar{y}z\bar{w} \vee x\bar{y}zw \vee xyz\bar{w} \vee xyzw$$

Задача 18.8.

8

$$\bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}zw \vee \bar{x}yz\bar{w} \vee \bar{x}yzw \vee x\bar{y}z\bar{w} \vee x\bar{y}zw \vee xyz\bar{w} \vee xyzw$$

Задача 18.9.

8

$$\bar{x}yz\bar{w} \vee x\bar{y}z\bar{w} \vee x\bar{y}z\bar{w} \vee xy\bar{z}\bar{w} \vee xyz\bar{w}$$

Задача 18.10.

8

$$\bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee xy\bar{z}\bar{w} \vee xy\bar{z}\bar{w}$$

Задача 18.11.

8

$$\bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee x\bar{y}z\bar{w} \vee x\bar{y}z\bar{w} \vee xy\bar{z}\bar{w} \vee xy\bar{z}\bar{w}$$

Задача 18.12.

8

$$\bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee x\bar{y}z\bar{w} \vee x\bar{y}z\bar{w} \vee xy\bar{z}\bar{w} \vee xy\bar{z}\bar{w} \vee xyz\bar{w}$$

Задача 18.13.

8

$$\bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee x\bar{y}z\bar{w} \vee xyz\bar{w} \vee xyz\bar{w}$$

Задача 18.14.

8

$$\bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee x\bar{y}z\bar{w} \vee x\bar{y}z\bar{w} \vee xy\bar{z}\bar{w} \vee xy\bar{z}\bar{w}$$

Задача 18.15.

8

$$\bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee x\bar{y}z\bar{w} \vee x\bar{y}z\bar{w} \vee xy\bar{z}\bar{w} \vee xy\bar{z}\bar{w} \vee xyz\bar{w}$$

Задача 18.16.

8

$$\bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee x\bar{y}z\bar{w} \vee xyz\bar{w}$$

Задача 18.17.

8

$$x\bar{y}\bar{z}w \vee x\bar{y}zw \vee xy\bar{z}\bar{w}$$

Задача 18.18.

8

$$\bar{x}y\bar{z}w \vee \bar{x}yzw \vee x\bar{y}z\bar{w} \vee xy\bar{z}w \vee xyzw$$

Задача 18.19.

8

$$\bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}zw \vee \bar{x}y\bar{z}\bar{w} \vee \bar{x}y\bar{z}w \vee \bar{x}yz\bar{w} \vee \bar{x}yzw \vee xy\bar{z}\bar{w} \vee xy\bar{z}w$$

Задача 18.20.

8

$$\bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}zw \vee x\bar{y}z\bar{w} \vee x\bar{y}zw \vee xy\bar{z}w$$

Задача 18.21.

8

$$\bar{x}y\bar{z}\bar{w} \vee \bar{x}y\bar{z}w \vee x\bar{y}z\bar{w} \vee xy\bar{z}\bar{w} \vee xy\bar{z}w$$

Задача 18.22.

8

$$\bar{x}\bar{y}zw \vee x\bar{y}z\bar{w} \vee x\bar{y}z\bar{w} \vee x\bar{y}zw$$

Задача 18.23.

8

$$\bar{x}y\bar{z}w \vee \bar{x}yzw \vee \bar{x}y\bar{z}\bar{w} \vee \bar{x}y\bar{z}w \vee \bar{x}yzw \vee x\bar{y}z\bar{w} \vee xyz\bar{w}$$

Задача 18.24.

8

$$\bar{x}y\bar{z}\bar{w} \vee \bar{x}y\bar{z}w \vee \bar{x}yz\bar{w} \vee \bar{x}yzw \vee x\bar{y}z\bar{w} \vee x\bar{y}zw$$

Задача 18.25.

8

$$\bar{x}\bar{y}\bar{z}\bar{w} \vee \bar{x}\bar{y}\bar{z}w \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}zw \vee \bar{x}y\bar{z}\bar{w} \vee \bar{x}y\bar{z}w \vee \bar{x}yz\bar{w} \vee \bar{x}yzw$$

Задача 18.26.

8

$$\bar{x}\bar{y}\bar{z}w \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}zw \vee \bar{x}y\bar{z}\bar{w} \vee \bar{x}y\bar{z}w \vee \bar{x}yz\bar{w} \vee \bar{x}yzw$$

Задача 18.27.

8

$$\bar{x}\bar{y}\bar{z}w \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}zw \vee \bar{x}y\bar{z}\bar{w} \vee \bar{x}y\bar{z}w \vee \bar{x}yz\bar{w} \vee \bar{x}yzw$$

Задача 18.28.

8

$$\bar{x}\bar{y}\bar{z}\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}zw \vee \bar{x}y\bar{z}\bar{w} \vee \bar{x}y\bar{z}w$$

Задача 18.29.

8

$$\bar{x}\bar{y}\bar{z}w \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}zw \vee \bar{x}y\bar{z}\bar{w} \vee \bar{x}y\bar{z}w \vee \bar{x}yz\bar{w} \vee \bar{x}yzw$$

Задача 18.30.

8

$$\bar{x}\bar{y}\bar{z}\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}zw \vee \bar{x}y\bar{z}\bar{w} \vee \bar{x}y\bar{z}w \vee \bar{x}yz\bar{w} \vee \bar{x}yzw$$

Задача 18.31.

8

$$\bar{x}\bar{y}\bar{z}w \vee \bar{x}\bar{y}zw \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}z\bar{w} \vee \bar{x}\bar{y}zw \vee \bar{x}y\bar{z}\bar{w} \vee \bar{x}y\bar{z}w \vee \bar{x}yz\bar{w} \vee \bar{x}yzw \vee \bar{x}yz\bar{w} \vee \bar{x}yzw$$

Упрощение СДНФ (4 переменные)

1	$zwx \vee z\bar{w}\bar{x} \vee \bar{z}\bar{w}xy \vee z\bar{y}$	0 0 1 1 0 0 1 0 0 0 1 1 1 0 0 1
2	$wz \vee \bar{y}w$	0 1 0 1 0 0 0 1 0 1 0 1 0 0 0 1
3	$\bar{x}z \vee xy$	0 0 1 1 0 0 1 1 0 0 0 0 1 1 1 1
4	$\bar{w}\bar{x}\bar{y} \vee \bar{z}w\bar{x} \vee zwx\bar{y}$	1 1 1 0 0 1 0 0 0 0 0 0 0 0 0 1
5	$\bar{x}\bar{y} \vee \bar{w}x\bar{y} \vee zwx\bar{y}$	1 1 1 1 0 0 0 0 1 0 1 0 0 0 0 1
6	$\bar{w}xz \vee wx\bar{z}\bar{y}$	0 0 0 0 0 0 0 0 0 1 1 0 0 0 1 0
7	$\bar{z}wx \vee y$	0 0 0 0 1 1 1 1 0 1 0 0 1 1 1 1
8	$zw \vee \bar{x}z$	0 0 1 1 0 0 1 1 0 0 0 1 0 0 0 1
9	$z\bar{w}\bar{x}y \vee xw$	0 0 0 0 0 0 1 0 0 1 0 1 0 1 0 1
10	$\bar{x}z \vee x\bar{z}y \vee \bar{x}w\bar{y}$	0 1 1 1 0 0 1 1 0 0 0 0 1 1 0 0
11	$\bar{z}\bar{x}\bar{y} \vee \bar{w}x \vee \bar{w}y$	1 1 0 0 1 0 1 0 1 0 1 0 1 0 1 0
12	$\bar{w}y \vee wz$	0 0 0 1 1 0 1 1 0 0 0 1 1 0 1 1
13	$zy \vee \bar{w}z$	0 0 1 0 0 0 1 1 0 0 1 0 0 0 1 1
14	\bar{z}	1 1 0 0 1 1 0 0 1 1 0 0 1 1 0 0
15	$\bar{x}wy \vee y\bar{z} \vee x\bar{w}$	0 0 0 0 1 1 0 1 1 0 1 0 1 1 1 0
16	$zw \vee \bar{x}z$	0 0 1 1 0 0 1 1 0 0 0 1 0 0 0 1
17	$\bar{y}xw \vee yx\bar{w}\bar{z}$	0 0 0 0 0 0 0 0 0 1 0 1 1 0 0 0
18	$z\bar{y}\bar{w}x \vee wy$	0 0 0 0 0 1 0 1 0 0 1 0 0 1 0 1
19	$\bar{x}\bar{w}\bar{y} \vee \bar{z}w \vee \bar{z}y$	1 1 1 0 1 1 0 0 0 1 0 0 1 1 0 0
20	$z\bar{y} \vee ywx\bar{z}$	0 0 1 1 0 0 0 0 0 0 1 1 0 1 0 0
21	$y\bar{z} \vee zwx\bar{y}$	0 0 0 0 1 1 0 0 0 0 0 1 1 1 0 0
22	$\bar{y}zw \vee x\bar{y}\bar{w}$	0 0 0 1 0 0 0 0 1 0 1 1 0 0 0 0
23	$\bar{x}w \vee x\bar{w}z \vee \bar{x}y\bar{z}$	0 1 0 1 1 1 0 1 0 0 1 0 0 0 1 0
24	$\bar{y}wx \vee \bar{x}y$	0 0 0 0 1 1 1 1 0 1 0 1 0 0 0 0
25	$\bar{x}\bar{y} \vee wz$	1 1 1 1 0 0 0 1 0 0 0 1 0 0 0 1
26	$\bar{z}x \vee z\bar{x}w \vee \bar{z}y\bar{w}$	0 0 0 1 1 0 0 1 1 1 0 0 1 1 0 0
27	$wx \vee \bar{z}w$	0 1 0 0 0 1 0 0 0 1 0 1 0 1 0 1
28	$y\bar{z} \vee \bar{y}\bar{x}z\bar{w}$	0 0 1 0 1 1 0 0 0 0 0 0 1 1 0 0
29	$xzy \vee x\bar{z}\bar{y} \vee \bar{x}\bar{z}yw \vee x\bar{w}$	0 0 0 0 0 1 0 0 1 1 1 0 1 0 1 1
30	$yzw \vee y\bar{z}\bar{w} \vee \bar{y}\bar{z}wx \vee y\bar{x}$	0 0 0 0 1 1 1 1 0 1 0 0 1 0 0 1
31	$y\bar{z} \vee w$	0 1 0 1 1 1 0 1 0 1 0 1 1 1 0 1