

Rješenje 1. i 2. zadatka

$$X \cdot \overline{Z \cdot Y} + \overline{Z}.$$

Pomoć: Izraz je moguće pojednostaviti tako da ima samo 3 operatora.

X	Y	Z	\overline{Z}	$Y + \overline{Z}$	$\overline{Y + \overline{Z}}$	$Z \cdot \overline{Y + \overline{Z}}$	$\overline{Z \cdot \overline{Y + \overline{Z}}}$	$X \cdot \overline{Z \cdot \overline{Y + \overline{Z}}}$
0	0	0	1	1	0	0	1	0
0	0	1	0	0	1	1	0	0
0	1	0	1	1	0	0	1	0
0	1	1	0	1	0	0	1	0
1	0	0	1	1	0	0	1	1
1	0	1	0	0	1	1	0	0
1	1	0	1	1	0	0	1	1
1	1	1	0	1	0	0	1	1

$$\text{DNF} = X \cdot \bar{Y} \cdot \bar{Z} + X \cdot Y \cdot \bar{Z} + X \cdot Y \cdot Z.$$
$$\text{KNF} = (X + Y + Z) \cdot (X + Y + \overline{Z}) \cdot (X + \overline{Y} + Z) \cdot (X + \overline{Y} + \overline{Z}) \cdot (\overline{X} + Y + \overline{Z}).$$
$$\begin{aligned} X \cdot \overline{Y} \cdot \overline{Z} + X \cdot Y \cdot \overline{Z} + X \cdot Y \cdot Z &= X \cdot \overline{Z} \cdot (\overline{Y} + Y) + X \cdot Y \cdot Z = X \cdot \overline{Z} + X \cdot Y \cdot Z \\ &= X \cdot (\overline{Z} + Y \cdot Z) = (10) \text{ i } (1) = X \cdot (Y + \overline{Z}). \end{aligned}$$
$$X \cdot \overline{Z \cdot Y + \overline{Z}} = (11) = X \cdot (\overline{Z} + \overline{\overline{Y + \overline{Z}}}) = X \cdot (\overline{Z} + Y + \overline{Z}) = X \cdot (Y + \overline{Z}).$$

1	1	0	0	0	0	0	1	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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Dakle, traženi broj $= -9.625$.