



Problem 5. «Reverse engineering»

After reverse engineering of a realization for some unknown cryptographic algorithm, Bob obtained the following Boolean function:

$$f_{2n}(x_1, \dots, x_{2n}) = \bigoplus_{i=1}^n x_i x_{i+n} \prod_{j=i+1}^n (x_j \oplus x_{j+n}).$$

He tried to understand what is a cryptographic sense of it. And soon a simple association ran through his head. What is this function?

