

Задача 3.

Решить задачу симплекс-методом ($x_j \geq 0$).

1	$0x_1 + 0x_2 + 2x_3 \leq 0$ $1x_1 + 2x_2 + 0x_3 \geq 6$ $1x_1 - 1x_2 + 2x_3 \leq -3$ $1x_1 + 2x_2 + 0x_3 \leq 9$ $Z = 8x_1 + 4x_2 + 3x_3 \rightarrow \max$	8	$-1x_1 - 2x_2 - 1x_3 \leq -14$ $0x_1 + 2x_2 - 1x_3 \leq 6$ $2x_1 + 1x_2 + 1x_3 \geq 6$ $1x_1 - 2x_2 + 1x_3 \leq -4$ $Z = -2x_1 + 4x_2 - 4x_3 \rightarrow \max$
2	$-1x_1 - 1x_2 + 1x_3 + 2x_4 \leq -2$ $0x_1 - 1x_2 + 2x_3 - 1x_4 \geq 6$ $2x_1 + 0x_2 + 0x_3 - 2x_4 \leq 14$ $0x_1 + 0x_2 - 2x_3 + 0x_4 \leq -3$ $Z = -2x_1 - 2x_2 + 0x_3 + 2x_4 \rightarrow \max$	9	$1x_1 + 2x_2 - 0x_3 \leq 8$ $-1x_1 + 2x_2 - 1x_3 \leq -2$ $2x_1 + 0x_2 - 1x_3 \geq 8$ $Z = -11x_1 + 6x_2 + 0x_3 \rightarrow \max$
3	$0x_1 - 2x_2 + 0x_3 + 1x_4 \leq 5$ $1x_1 - 2x_2 + 2x_3 + 2x_4 \geq 8$ $-1x_1 + 0x_2 + 1x_3 - 2x_4 \leq -9$ $Z = -8x_1 - 16x_2 + 5x_3 - 5x_4 \rightarrow \max$	10	$0x_1 - 1x_2 + 1x_3 \geq -7$ $2x_1 + 2x_2 + 2x_3 \leq 4$ $-1x_1 + 1x_2 + 0x_3 \geq -8$ $Z = 13x_1 + 7x_2 + 4x_3 \rightarrow \max$
4	$-1x_1 - 2x_2 + 0x_3 + 1x_4 \geq -1$ $-2x_1 + 2x_2 - 2x_3 + 2x_4 \leq -6$ $-2x_1 - 1x_2 + 0x_3 + 1x_4 \leq -1$ $Z = -2x_1 + 3x_2 - 4x_3 + 0x_4 \rightarrow \max$	11	$1x_1 + 2x_2 - 0x_3 \leq 18$ $-1x_1 + 2x_2 - 1x_3 \leq -2$ $2x_1 + 0x_2 - 1x_3 \geq 8$ $Z = -11x_1 + 12x_2 + 2x_3 \rightarrow \max$
5	$0x_1 + 0x_2 + 2x_3 + 0x_4 \geq 1$ $-1x_1 + 1x_2 - 2x_3 + 2x_4 \leq -6$ $-2x_1 - 1x_2 - 1x_3 + 1x_4 \leq -9$ $Z = -10x_1 - 4x_2 - 8x_3 + 3x_4 \rightarrow \max$	12	$0x_1 + 1x_2 - 1x_3 \leq 7$ $-2x_1 + 2x_2 + 2x_3 \leq 4$ $1x_1 + 1x_2 + 0x_3 \geq 8$ $Z = -13x_1 + 7x_2 + 4x_3 \rightarrow \max$
6	$0x_1 - 1x_2 + 2x_3 - 2x_4 \leq 0$ $2x_1 + 2x_2 + 2x_3 + 2x_4 \leq 11$ $1x_1 + 1x_2 - 1x_3 + 2x_4 \geq 2$ $1x_1 + 2x_2 + 0x_3 \leq 9$ $Z = -8x_1 - 14x_2 + 13x_3 - 18x_4 \rightarrow \max$	13	$-1x_1 - 1x_2 + 0x_3 \leq -2$ $1x_1 - 1x_2 - 2x_3 \geq -3$ $0x_1 - 1x_2 + 1x_3 \leq -3$ $2x_1 - 1x_2 - 1x_3 \leq -1$ $Z = 8x_1 - 9x_2 + 0x_3 \rightarrow \max$
7	$2x_1 - 2x_2 + 2x_3 \leq 3$ $-2x_1 + 2x_2 + 2x_3 \leq -1$ $2x_1 + 1x_2 + 0x_3 \leq 8$ $1x_1 - 2x_2 + 1x_3 \geq -1$ $Z = -2x_1 + 9x_2 - 7x_3 \rightarrow \max$	14	$2x_1 - 2x_2 - 2x_3 \leq -4$ $-2x_1 - 2x_2 - 2x_3 \leq -4$ $1x_1 + 1x_2 + 0x_3 \geq 0$ $Z = 4x_1 - 10x_2 - 6x_3 \rightarrow \max$