

$$Z(X) = 2x_1 - 8x_2 + 2x_3 + x_4 \rightarrow \max$$

$$\begin{cases} -2x_1 + x_2 + 4x_3 + x_4 = 8 \\ -2x_2 + 2x_3 + x_4 = 6 \\ x_j \geq 0 \quad j = 1, \dots, 4 \end{cases} \quad | \text{ I - II}$$

$$Z(X) = 2x_1 - 8x_2 + 2x_3 + x_4 \rightarrow \max$$

$$\begin{cases} -2x_1 + 3x_2 + 2x_3 = 2 \\ -2x_2 + 2x_3 + x_4 = 6 \\ x_j \geq 0 \quad j = 1, \dots, 4 \end{cases} \quad | + a$$

$$Z_1(X) = 2x_1 - 8x_2 + 2x_3 + x_4 - Ma \rightarrow \max$$

$$-2x_1 + 3x_2 + 2x_3 + a = 2$$

$$-2x_2 + 2x_3 + x_4 = 6$$

$$x_j \geq 0 \quad j = 1, \dots, 4; a \geq 0$$

		2	-8	2	1	-M					
Б К	Б П	x_1	x_2	$\downarrow x_3$	x_4	a	ОБР	Θ_2	Θ_3		
-M	$\leftarrow a$	-2	3	2	0	1	2	2/3	1	$\Delta Z_2 = -(6-3M) \cdot 2/3 =$	-4+2M
1	x_4	0	-2	2	1	0	6	-	3	$\Delta Z_3 = -(-2M) \cdot 1 =$	2M
	Δ_j	-2	6	0	0	0	6				
	Δ_{jM}	2M	-3M	-2M	0	0	-2M	Θ_1			
2	x_3	-1	1,5	1	0		1	-			
1	$\leftarrow x_4$	2	-5	0	1		4	2		$\Delta Z_1 = -(-2) \cdot 2 =$	4
	Δ_j	-2	6	0	0		6			$= 6 - 2M + 2M$	
2	x_3	0	-1	1	0,5		3				
1	x_1	1	-2,5	0	0,5		2				
	Δ_j	0	1	0	1		10			$= 6 + 4$	

$$x_1^* = (2; 0; 3; 0; 0)$$

$$x^* = (2; 0; 3; 0)$$

$$Z^* = Z_1^* = 10$$