

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

$$-2x_1 + x_2 + 4x_3 + x_4 = +a_1$$

$$-2x_2 + 2x_3 + x_4 = 6 + a_2$$

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

$$Z_1(X) = 2x_1 - 8x_2 + 2x_3 + x_4 - Ma_1 - Ma_2 \rightarrow \max$$

$$-2x_1 + x_2 + 4x_3 + x_4 + a_1 = 8$$

$$-2x_2 + x_3 + x_4 + a_2 = 6$$

$$x_j \geq 0 \quad j = 1, \dots, 4; \quad a_1, a_2 \geq 0$$

		2	-8	2	1	-M	-M					
Б К	Б П	x <sub>1</sub>	x <sub>2</sub>	x <sub>3</sub>	↓x <sub>4</sub>	a <sub>1</sub>	a <sub>2</sub>	ОБР	Θ <sub>3</sub>	Θ <sub>4</sub>		
-M	a <sub>1</sub>	-2	1	4	1	1	0	8	2	8	ΔZ <sub>3</sub> = - (-2 - 6M)·2 =	4 + 12M
-M	←a <sub>2</sub>	0	-2	2	1	0	1	6	3	6	ΔZ <sub>4</sub> = - (-1 - 2M)·6 =	6 + 12M
	Δ <sub>j</sub>	-2	8	-2	-1	0	0	0				
	Δ <sub>jM</sub>	2M	M	-6M	-2M	0	0	-14M	Θ <sub>2</sub>	Θ <sub>3</sub>		
-M	←a <sub>1</sub>	-2	3	2	0	1		2	0,667	1	ΔZ <sub>2</sub> = - (6 - 3M)·2/3 =	- 4 + 2M
1	x <sub>4</sub>	0	-2	2	1	0		6	-	3	ΔZ <sub>3</sub> = - (- 2M)·1 =	2M
	Δ <sub>j</sub>	-2	6	0	0	0		6				
	Δ <sub>jM</sub>	2M	- 3M	- 2M	0	0		- 2M	Θ <sub>2</sub>			
2	x <sub>3</sub>	-1	1,5	1	0			1	-			
1	x <sub>4</sub>	2	-5	0	1			4	2	ΔZ <sub>1</sub> = 4		
	Δ <sub>j</sub>	-2	6	0	0			6				
2	x <sub>3</sub>	0	-1	1	0,5			3				
2	x <sub>4</sub>	1	-2,5	0	0,5			2				
	Δ <sub>j</sub>	0	1	0	1			10				

$\Delta Z_1 =$	<b>4</b>
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$$x_1^* = (2; 0; 3; 0; 0; 0)$$

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

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