

Алгоритм 14

$$\max 3x_1 + 2x_2 + 5x_3$$

$$x_1 + 3x_2 + 2x_3 \leq 15$$

$$2x_2 - x_3 \geq 5$$

$$2x_1 + x_2 - 5x_3 = 10$$

$$x_1, x_2, x_3 \geq 0$$

62 экв. (копир)

$$\max 3x_1 + 2x_2 + 5x_3 + Mx_6 + Mx_7$$

$$x_1 + 3x_2 + 2x_3 + x_4 = 15$$

$$2x_2 - x_3 - x_5 + x_6 = 5$$

$$2x_1 + x_2 - 5x_3 + x_7 = 10$$

$$x_1, \dots, x_7 \geq 0$$

$M \ll 0$

	C_0	b	P_1	P_2	P_3	P_4	P_5	P_6	P_7	θ	
P_4	0	15	1	3	2	1	0	0	0	$\frac{15}{3}=5$	Γ_1
P_6	M	5	0	2	-1	0	-1	1	0	$\frac{5}{2}$	Γ_2
P_7	M	10	2	1	-5	0	0	0	1	$\frac{10}{1}=10$	Γ_3
Z	$\frac{15}{2}$	$2M-3$	$3M-2$	$-6M+5$	0	-M	0	0	0		Γ_4
P_4	0	$15/2$	1	0	$7/2$	1	$3/2$	$-3/2$	0	$15/2$	$\Gamma_1' = \Gamma_1 - 3\Gamma_2'$
P_6	2	$5/2$	0	1	$-1/2$	0	$-1/2$	$1/2$	0	-	$\Gamma_2' = \Gamma_2/2$
P_7	M	$15/2$	2	0	$-9/2$	0	$1/2$	$-1/2$	1	$15/4$	$\Gamma_3' = \Gamma_3 - \Gamma_2'$
Z	$\frac{15M}{2} + 5$	$2M-3$	0	$-\frac{9M}{2} - 6$	0	$\frac{M}{2} - 1$	$\frac{3M}{2} + 1$	0	0		$\Gamma_4' = \Gamma_4 - (3M-2)\Gamma_2'$
P_4	0	$15/4$	0	0	$23/4$	1	$5/4$	$-5/4$	$-1/2$	$\frac{15}{11}$	$\Gamma_1'' = \Gamma_3''$
P_2	2	$5/2$	0	1	$-1/2$	0	$-1/2$	$1/2$	0	-	Γ_2''
P_1	3	$15/4$	1	0	$-9/4$	0	$1/4$	$-1/4$	$1/2$	-	$\Gamma_3'' = \Gamma_3'/2$
Z	$65/4$	0	0	$-5/4$	0	$-1/4$	$-M+1/4$	$-M+3/2$	0		$\Gamma_4'' = (2M-3)\Gamma_3''$
P_3	5	$15/23$	0	0	1	$4/23$	$5/23$	$-5/23$	$-2/23$		$\Gamma_3''' = \frac{4}{23}\Gamma_1''$
P_2	2	$65/23$	0	1	0	$2/23$	$-8/23$	$8/23$	$-1/23$		$\Gamma_2''' = \Gamma_2'' + \frac{1}{23}\Gamma_1'''$
P_1	3	$110/23$	1	0	0	$9/23$	$17/23$	$-17/23$	$7/23$		$\Gamma_3''' = \Gamma_3'' + \frac{9}{23}\Gamma_1'''$
Z	$565/23$	0	0	0	0	$51/23$	$58/23$	$-M - \frac{58}{23}$	$-M + \frac{9}{23}$		$\Gamma_4''' = \Gamma_4'' + \frac{51}{23}\Gamma_1'''$