

Example 1

Objective	$Z = 2x_1 + 7x_2 + 6x_3 + 4x_4$
Constraints	$x_1 + x_2 + 0.83x_3 + 0.5x_4 \leq 65$ $1.2x_1 + x_2 + x_3 + 1.2x_4 \leq 96$ $0.5x_1 + 0.7x_2 + 1.2x_3 + 0.4x_4 \leq 80$
Goal	Maximize
Solution	$x_1 = 0, x_2 = 5.16008, x_3 = 53.2015, x_4 = 31.3653$ $Z = 480.791$ Number of Tableaus: 4

Example 2

Objective	$Z = 1.2x_1 + x_2 + x_3 + x_4$
Constraints	$x_1 + x_2 + 0.83x_3 + 0.5x_4 \leq 65$ $1.2x_1 + x_2 + x_3 + 1.2x_4 \leq 96$ $0.5x_1 + 0.7x_2 + 1.2x_3 + 0.4x_4 \leq 80$
Goal	Maximize
Solution	$x_1 = 4.65986, x_2 = 0, x_3 = 54.8469, x_4 = 29.6344$ $Z = 90.0731$ Number of Tableaus: 4

Example 3

Objective	$Z = x_1 + 0.5x_2 + 2.5x_3 + 3x_4$
Constraints	$1.5x_1 + x_2 \geq 35$ $2x_2 + 6x_3 + 4x_4 \geq 120$ $0.5x_1 + 2.5x_3 + 1.5x_4 \geq 35$
Goal	Minimize
Solution	$x_1 = 16.6667, x_2 = 10, x_3 = 16.6667, x_4 = 0$ $Z = 63.3333$ Number of Tableaus: 4

Example 4

Objective	$Z = 1.5x_1 + x_2 + 0.5x_3 + 2x_4$
Constraints	$1.5x_1 + x_2 \geq 35$ $2x_2 + 6x_3 + 4x_4 \geq 120$ $0.5x_1 + 2.5x_3 + 1.5x_4 \geq 35$
Goal	Minimize
Solution	$x_1 = 16.6667, x_2 = 10, x_3 = 16.6667, x_4 = 0$

	$Z = 43.3333$ Number of Tableaus: 4
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