

An Unbounded Optimal Region

Tableau 1:

	x_1	x_2	x_3	x_4	x_5	x_6	
x_5	2	2	-3	-2	1	0	6
x_6	-6	-1	9	-1	0	1	7
	-34	-75	60	89	0	0	0

Tableau 2:

	x_1	x_2	x_3	x_4	x_5	x_6	
x_2	1	1	$-\frac{3}{2}$	-1	$\frac{1}{2}$	0	3
x_6	-5	0	$\frac{15}{2}$	-2	$\frac{1}{2}$	1	10
	41	0	$-\frac{105}{2}$	14	$\frac{75}{2}$	0	225

Tableau 3 is optimal:

	x_1	x_2	x_3	x_4	x_5	x_6	
x_2	0	1	0	$-\frac{7}{5}$	$\frac{3}{5}$	$\frac{1}{5}$	5
x_3	$-\frac{2}{3}$	0	1	$-\frac{4}{15}$	$\frac{1}{15}$	$\frac{2}{15}$	$\frac{4}{3}$
	6	0	0	0	41	7	295

A Problem With One Feasible Solution

Tableau 1:

	w_1	w_2	w_3	w_4	w_5	w_6	
w_3	-2	6	1	0	0	0	-34
w_4	-2	1	0	1	0	0	-75
w_5	3	-9	0	0	1	0	60
w_6	2	1	0	0	0	1	89
	6	7	0	0	0	0	0

Tableau 2:

	w_1	w_2	w_3	w_4	w_5	w_6	
w_3	0	5	1	-1	0	0	41
w_1	1	$-\frac{1}{2}$	0	$-\frac{1}{2}$	0	0	$\frac{75}{2}$
w_5	0	$-\frac{15}{2}$	0	$\frac{3}{2}$	1	0	$-\frac{105}{2}$
w_6	0	2	0	1	0	1	14
	0	10	0	3	0	0	-225

Tableau 3 is feasible and optimal:

	w_1	w_2	w_3	w_4	w_5	w_6	
w_3	0	0	1	0	$\frac{2}{3}$	0	6
w_1	1	0	0	$-\frac{3}{5}$	$-\frac{1}{15}$	0	41
w_2	0	1	0	$-\frac{1}{5}$	$-\frac{2}{15}$	0	7
w_6	0	0	0	$\frac{7}{5}$	$\frac{4}{15}$	1	0
	0	0	0	5	$\frac{4}{3}$	0	-295