

Initial Dictionary

x_3	6.0	$-3.00x_1 - 2.00x_2$
x_4	0.0	$+3.00x_1 - 2.00x_2$
z	0.0	$+1.00x_2$

No initialization required - Proceed to Optimize.

x_2 enters and x_4 leaves

x_3	6.0	$-6.00x_1 + 1.00x_4$
x_2	0.0	$+1.50x_1 - 0.50x_4$
z	0.0	$+1.50x_1 - 0.50x_4$

x_1 enters and x_3 leaves

x_1	1.0	$-0.17x_3 + 0.17x_4$
x_2	1.5	$-0.25x_3 - 0.25x_4$
z	1.5	$-0.25x_3 - 0.25x_4$

Final Dictionary Final dictionary after first LP relaxation solve:

x_1	1.0	$-0.17x_3 + 0.17x_4$
x_2	1.5	$-0.25x_3 - 0.25x_4$
z	1.5	$-0.25x_3 - 0.25x_4$

After cutting plane is added

x_1	1.0	$-0.17x_3 + 0.17x_4$
x_2	1.5	$-0.25x_3 - 0.25x_4$
x_5	-0.5	$+0.25x_3 + 0.25x_4$
z	1.5	$-0.25x_3 - 0.25x_4$

Forming the dual dictionary:

The Final Dual Dictionary is:

Final primal dictionary obtained:

x_1	0.666666666667	$-0.67x_5 + 0.33x_4$
x_2	1.0	$-1.00x_5$
x_3	2.0	$+4.00x_5 - 1.00x_4$
z	1.0	$-1.00x_5$

After cutting plane is added

x_1	0.666666666667	$-0.67x_5 + 0.33x_4$
x_2	1.0	$-1.00x_5$
x_3	2.0	$+4.00x_5 - 1.00x_4$
x_6	-0.666666666667	$+0.67x_5 + 0.67x_4$
z	1.0	$-1.00x_5$

Forming the dual dictionary:

The Final Dual Dictionary is:
 Final primal dictionary obtained:

x_1	1.0	$-1.00x_5 + 0.50x_6$
x_2	1.0	$-1.00x_5$
x_3	1.0	$+5.00x_5 - 1.50x_6$
x_4	1.0	$-1.00x_5 + 1.50x_6$
z	1.0	$-1.00x_5$

Final answer: 1.000000 Done.Added 2 cuts