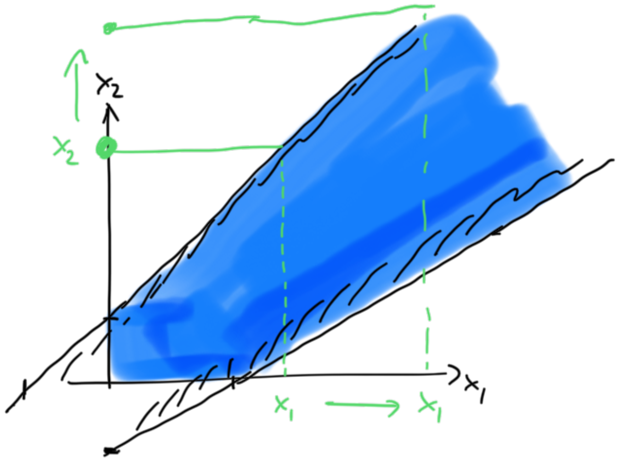
Another example:

maximize $z = 2x_1 + x_2$

subject to $-x_1 + x_2 \le 1$

$x_1 - 2x_2 \le 2$

$x_1, x_2 \ge 0$



Set up an initial tableau:

x_1	x_2	s_1	s_2	
-1	1	1	0	1
1	-2	0	1	2
-2	-1	0	0	0

new pivot

Note: this already corresponds to a basic feasible solution:

$s_1 = 1$, $s_2 = 2$

$x_1 = x_2 = 0$ $z = 0$

x_1 is entering

	x_1	x_2	s_1	s_2	
$R1 + R2 \to R1$	0	-1	1	1	3
	1	-2	0	1	2
$R3 + 2R2 \to R3$	0	-5	0	2	4

$s_1 = 3$, $x_1 = 2$

$x_2 = s_2 = 0$

$z = -4$

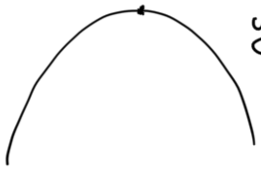
x_2 should be entering, but all entries in that column are negative, so we can lower the objective function without bounds by taking x_2 as large as we like:

E.g. $x_2 = 10$ (100, 1000), would get a smaller tableau

x_1	s_1	s_2			
0	1	1	13	103	1003
1	0	1	22	202	2002
0	0	2	54	504	5004

$y = x^2$

What is the minimum?



$y = -x^2$

Here, minimum is turned into maximum.

So, in general, minimization is turned into maximization by multiplying the objective function by -1 (also for nonlinear problems...)