

MA114
Quiz 9A
Spring 2005

Name Keyz
Row _____

Given the following:

$$\text{Minimize } C = 2x - 3y$$

subject to

$$x + y \leq 6$$

$$-x + 2y \geq 6$$

$$x \geq 0, y \geq 0$$

3pts

1. Rewrite the above in "proper" form, if necessary.

$$\text{Maximize } -C = -2x + 3y$$

subject to

$$x + y \leq 6$$

$$x - 2y \leq -6$$

$$x \geq 0, y \geq 0$$

3pts

2. Introduce slack variables + convert to a system of equations

~~$x + y + (-c) = 0$~~

$$x + y + u = 6$$

$$x - 2y + v = -6$$

$$2x - 3y + (-c) = 0$$

4pts

3. Put into into a tableau. Choose 1st pivot element; then stop! DO NOT PIVOT!

$$\begin{array}{cccccc|c} x & y & u & v & -C & \\ \hline 1 & 1 & 1 & 0 & 0 & 6 \\ 1 & -2 & 0 & 1 & 0 & -6 \\ 2 & -3 & 0 & 0 & +1 & 0 \end{array}$$