

[8] **2.** Use the two-phase method to solve:

$$\begin{aligned} \text{maximize} \quad & x_1 + x_2, \quad \text{subject to } x_1, x_2 \geq 0 \text{ and} \\ & x_1 + 2x_2 \leq 10 \\ & -x_1 - 2x_2 \leq -4 \end{aligned}$$

When there is more than one possible entering or leaving variable, choose the one with the smallest subscript.