We have the following linear program into standard form:

Maximize

\[ x_1 + 2x_2 \]

subject to

\[ x_1 + x_2 \leq 20 \]
\[ x_2 \leq 10 \]
\[ 3x_1 + 5x_2 \leq 75 \]
\[ x_1, x_2 \geq 0 \]

Convert into slack form, apply up to two rounds of the simplex method, and say whether you have reached the final solution.