

Use L-shaped method to solve the following program:

$$\begin{array}{ll}\min & 7x_1 + 11x_2 + E_\xi[q_1y_1 + q_2y_2] \\ \text{s.t.} & y_1 + 2y_2 \geq d_1 - x_1 \\ & y_1 \geq d_2 - x_2 \\ & 0 \leq x_1 \leq 10 \\ & 0 \leq x_2 \leq 10 \\ & y_1 \geq 0 \\ & y_2 \geq 0\end{array}$$

where $\xi = (q_1, q_2, d_1, d_2)^T$ is $(26, 16, 6, 12)$ and $(14, 24, 10, 4)$ with probability 0.5 each.