$$\begin{array}{ll}
\text{minimize} & y_A + y_B + y_C + y_D \\
\text{subject to} & y_A + y_B \geq 1 \\
& y_B + y_C \geq 1 \\
& y_B + y_D \geq 1 \\
& y_C + y_D \geq 1 \\
& y_A, y_B, y_C, y_D \geq 0
\end{array}$$