Consider the post office scheduling problem in the third chapter of Winston. The question: is it enough to have 25 employees to satisfy all demand?

- Formulate as a shortest path problem.
- Solve the shortest path problem by the LCA.
- Recover the number of employees needed for each day, from the $d_j$ labels obtained by the LCA.

Note: after you rewrote the problem using the new variables, you will end up with some inequalities containing only one variable. To still be able to turn the problem into a shortest path problem, you will need to introduce an extra variable, and an extra node in the graph.