



The black numbers represent demands and costs for a Transportation Problem.

- Show that the flow given by the pink numbers is optimal (even though it is not a spanning tree solution).
- Show that this nontree solution can be changed into a spanning tree solution by sending additional flow around a cycle.
- Show that this can always be done: For any transportation problem, any optimal flow can always be changed into an optimal spanning tree solution by sending additional flow around one or more cycles.