

Homework 5 [30 points]

We discussed flow networks and the maximum flow problem in class. Find and describe one practical application of this problem. Submit a write-up describing a real-world scenario that can be modeled with a flow network and how the solution to the maximum flow problem (or a variation on the solution) would be the solution to the scenario you described. You can research various applications of the maximum flow problem on the internet. However, make sure that your write-up is your own (don't just copy something off the internet). Be specific about what will be the vertices, edges, and capacities of your network. Your write-up should have the following sections:

1. Introduction – introduce the real-world scenario. [10 points]
2. Model – description of how your scenario can be modeled with a flow network. [10 points]
3. Solution – describe how the solution to the max-flow problem would be the solution to your scenario. [10 points]