

Important : Assignment 3 is divided in three parts:

the first part must be submitted in the **Assignment 3 - Part 1** Submission folder. It is worth 80 points and the instructions have been up on the course website for about a week

The second part is a mycourses quiz called **Assignment 3 - Part 2**. It is worth 12 points, and uses the file </content/enforced/343669-828.201809/bf1.txt>

The third part is a standalone question worth 8 points. You will upload your solution to the submission folder **Assignment 3 - Part 3 (theory question)** . This third part contains a single question, which follows:

### ASSIGNMENT 3 - PART 3 : FLOW NETWORK

Let  $G$  be a directed graph with a source vertex 0 and target vertex 5 (edges are indicated in the list below). Find a assignment of capacities such that the maximal flow is equal to 8 that assign a strictly positive flow to all edges in the flow network. The flow must be positive on all edges for all possible max flows. Submit your solution in the same format as the file ff226000000.txt (see Assignment 3). Make sure the edges indicate the capacity.

0 1  
0 2  
1 2  
1 3  
2 3  
2 4  
3 5  
3 4  
4 5

### SUBMISSION FORMAT

Your file should be called "p3.txt" and should contain the following lines :

8  
0 5  
6  
0 1 x  
0 2 x  
1 2 x  
1 3 x  
2 3 x  
2 4 x

**3 5 x****3 4 x****4 5 x**

where  $x$  is the capacity you chose for that edge.