

COP 3503 Fall 2026 Section 201 Program 5 Directions

This program is testing the use of utilizing a maximum flow algorithm such as Ford-Fulkerson. In addition, one other well known algorithm will be used, but that's not being disclosed (intentionally).

This program is a good bit shorter than the previous one. **Also, you are allowed to use the posted network flow code from the course website.** If you want to code your own you can, but for this one time, you are allowed to use this code since many people tend to use this code as a black box.

The key is to be careful when setting up your graph and making sure you understand conceptually what each vertex number represents. The most common error on problems like this one is when students "misremember" their numbering scheme for vertices and type in incorrect edge connections because they forgot which vertex referenced what idea/concept in the graph.

You will still be graded on standard style issues as well as commenting. Your program should have a header comment as well as a reasonable amount of internal comments. In addition, do strive to use reasonable variable names, but it's likely we'll be somewhat lenient on this particular issue.

Please read your input from standard input. Do NOT prompt the user to enter anything.

Please provide your output to standard output.

Your program will process one file with many test cases. You will get credit only for the test cases that complete within the given time limit (4 seconds) which also produce a correct answer.

Deliverables

1. Please submit your source file and call it **fuses.java**. (Note: Webcourses automatically adds version numbers to the end of your files if you resubmit. Don't worry about this. The grader will fix it.)
2. Please submit a short write-up discussing your development of the program, any interesting observations you made while working on the program, any hurdles you faced and how you overcame those hurdles. This should be submitted in a file called **P5-commentary.pdf**.