

COP 3503 Fall 2026 Section 201 Program 2 Directions

This program is testing the use backtracking. In order to get full credit, you must start generating all possible combinations of numbers, but skip checking combinations of numbers that are "doomed to fail".

This program is longer than the first program, so multiple methods must be part of the design for a good grade. One can create objects if they like, but it's not necessary for a good design on this particular program. Just make sure that each method handles a reasonable task.

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 which also produce a correct answer.

Deliverables

1. Please submit your source file and call it **mixedset.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 **P2-commentary.pdf**.