

COP 3503 Spring 2022 Section 2 Recitation Program #3

Ternarian Weights (<https://open.kattis.com/problems/ternarianweights>)

For each recitation program, in order to get full credit, you must submit your solution to open.kattis.com and get your solution accepted on all test cases. (Kattis link is included above.) In addition, some of the assignments will have some separate requirements to fulfill based on your code. When submitting your work to Webcourses, please carefully read the corresponding directions document before submitting all of your files.

NOTE: Over the course of the semester, you must submit THREE out of the five recitation programs. It is expected that while you are in recitation, you start working on each of them. But, afterwards, you can choose which three to finish up.

What This Program Is Testing

This problem requires finding a greedy algorithm to solve the problem properly. One should not try all possible placements of weights on pans. This attempt of a solution would take too long to run to process the number of cases in the input. In addition to solving the problem, **in order to receive full credit**, you must submit an intuitive proof as to why your algorithm correctly solves the problem for the given input bounds, quickly.

What to Submit

Please submit the following:

- 1) Your source file, weights.java.
- 2) A screenshot of your solution's accepted status on Kattis. (**This screen shot needs to include BOTH your username and the checkmarks for all of the test cases.**)
- 3) Submit a .pdf file with an intuitive description of why the algorithm correctly solves the problem for all possible input values n .