Week 2

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SP

Optimal Diet Problem, test case 106

Sabyasachi Pradhan Assignment: Programming Assignment 2 · 2 months ago

I am stuck at Optimal Diet Problem, test case 106 is failing. Will appreciate if any one can help?

Failed case #106/196: (Wrong answer)

Input:

5 5

-77 71 15 49 -2

77 -71 37 89 95

31 88 62 16 -73

38 -47 6 -42 -68

59 79 26 -18 -92

14736 32998 7529 4667 27779

-87 87 -43 86 13

Your output:

Bounded solution

28.740636175418803 0.000000000000000 0.000000000000000
345.898550724637687 0.000000000000000

Correct output:

Bounded solution

201.373283696327970000 440.398316605997990000 -0.000000000000028854
-0.000000000000019457 513.268817204301060000

(Time used: 0.00/2.00, memory used: 9854976/536870912.)

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CC **Cheung Wai Chun** · 2 months ago

Some tips in passing the assignment after several trials.

1. You don't need simplex algorithm to pass the assignment.

2. Compute vertices using inequalities (treat them as equalities) from input, minimum bound of each 'amount' (convert sign by taking negative), and sum of all amounts less than 10 ^ 9.

3. Consider itertools.combinations if you are using python. You need to choose m equations out of m+n+1 equations by traversing all possible combinations.

4. Consider passing by value for list objects.

5. For no solution case in gaussian elimination, try to return None/False. You can identify them when computing pivot element.

6. When checking for feasible solutions, don't forget to consider numerical error adding EPS.

7. Also check if zero solution is feasible and compare with original optimal solution.

8. Check infinity solution by considering right hand side of equalities of optimal solution.

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