

Truffle Search

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When searching for truffles a would be hunter would have to purchase their route through a truffle field. Your job is to create an efficient program to compute the route that will yield the most truffles, and then write up an analysis of the efficiency of your program.

Your program should take in a *.txt* file containing a square matrix of integers. Each integer representing how many truffles can be found in that plot of land. Your program needs to chart a path from North to South. When plotting your path you may start in any plot on the North side. From each plot the route may continue to an adjacent plot to the South-East, to the South, or to the South-West, until there are no more plots to the South, at which point your route is complete.

Example

Given an input of:

6	1	4	1
2	3	2	1
5	4	3	2
3	5	2	1

Your program should return:

[1,1]—6
[2,2]—3
[3,1]—5
[4,2]—5
19 truffles