Pizza Cutter Challenge

University of Salford Computing Society

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1 Challenge

You will be given a pizza that is represented as a 2-Dimensional Array of the characters *'M'* and *'T'*, with *'M'* representing mushrooms and *'T'* representing Tomatoes. How many times can the pizza be sliced producing slices that have a minimum number of toppings, but less than a maximum number of cells?
Whilst your slices can't overlap, you don't have use all the pizza you've been given.

2 Input Files

You will be given four input files; *example.in*, *small.in*, *medium.in*, and *big.in*. These files are in the following format.

```
R C L H
T T M
M T T
T M M
```

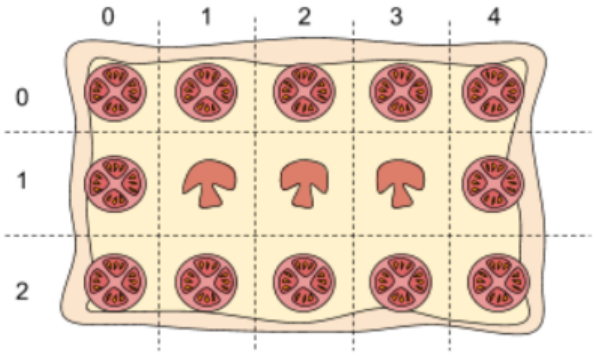
where;

- R = Number of rows in the pizza
- C = Number of columns in the pizza
- L = Minimum number of ingredients in the slice
- H = Maximum number of cells that make up the slice

So the file:

```
3 5 1 6
T T T T T
T M M M T
T T T T T
```

would look like:



3 Marking

In order to mark your solution, run the .out files produced by your algorithm through the marking script on the Computing Society's GitHub()`https://github.com/UoSCompSoc`). Your final mark will be a sum total of the best scores on the individual input data sets.

Remember, you can run the marking script as many times as you want, so take it slow and build your slicing algorithm up step by step. Test your algorithm on smaller data sets before progressing to the larger data sets.

Finally, we're all here to help, so don't get put off if you encounter a bump in the road. The Google Hash Code challenges are hard, they're built from Google's engineering problems! Being able to attempt the challenge is an accolade in itself.