# 6 n4vig473

Melinda "l337 h4x0r" Myers is bored after weeks of social isolation. During an evening snacking on fermented jelly beans, she decides to write her own navigation program. Her first task is to optimize input from the Data Supplier. Help Melinda calculate the minimum number of operations needed to multiply a series of Data Objects, assuming a Data Object is represented as a $n$ x $m$ matrix.

## 6.1 Input

A series of $n$ x $m$ matrices, where $n, m \leq 20$. The rows of each matrix are delimited by a newline character, while each matrix is delimited by a $ character. Additionally, the individual values stored within each matrix fall in the range of $1 \leq x \leq 100$.

## 6.2 Output

The minimum number of multiplication operations needed to perform the matrix multiplication. NOTE: The ordering of the matrices is immutable.

## 6.3 Sample Input/Output

| Sample Input | Sample Output |
|---|---|
| 46 50 60 73 94 4 66 8 30 53<br>12 15 16 32 25 20 77 26 94 79<br>97 100 72 48 56 83 68 53 9 23<br>21 44 84 70 30 79 52 54 16 72<br>23 84 67 60 48 68 79 6 66 73<br>$<br>46 50 60 73 94<br>12 15 16 32 25<br>97 100 72 48 56<br>21 44 84 70 30<br>23 84 67 60 48<br>46 50 60 73 94<br>12 15 16 32 25<br>97 100 72 48 56<br>21 44 84 70 30<br>23 84 67 60 48<br>$<br>46 50 60 73 94<br>12 15 16 32 25<br>97 100 72 48 56<br>21 44 84 70 30<br>23 84 67 60 48<br>$ | 375 |