

Transpose a given matrix

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Problem

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Refer [this](#) video if you do not know how to find transpose of a given matrix.

Input Format

Input will contain $1 + m$ rows.

First line will contain dimensions of matrix (m by n).

Next m lines will contain rows of matrix; one row of matrix per line, and each line would have n integers separated by tab.

Constraints

$0 < m, n \leq 100$

$-100000 < \text{each element of input matrices} \leq 100000$

Output Format

Output should have $1 + p$ lines.

First line should have dimensions of resultant matrix (p by q).

Next p lines should have rows of resultant matrix; one row of resultant matrix per line, and each line should have q integers separated by tab.

Sample Input 0

```
1 1
100
```

Sample Output 0

```
1 1
100
```

Sample Input 1

```
1 2
1 5
```

Sample Output 1

```
2 1
1
5
```

Sample Input 2

```
2 1
5
7
```

Sample Output 2

```
1 2
5 7
```

Sample Input 3

```
1 5
66 88 99 76 88
```

Sample Output 3

```
5 1
66
88
99
76
88
```

Sample Input 4

```
5 1
66
88
99
76
88
```

Sample Output 4

```
1 5
66 88 99 76 88
```

Sample Input 5

```
2 2
44 55
66 77
```

Sample Output 5

```
2 2
44 66
55 77
```

Sample Input 6

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

Sample Output 6

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

Sample Input 7

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

Sample Output 7

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

Sample Input 8

```
3 4
1 20 3 4
5 -6 71 88
9 10 -75 98
```

Sample Output 8

```
4 3
1 5 9
20 -6 10
3 71 -75
4 88 98
```

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Max Score: 10

Difficulty: Medium

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C



```
#include <stdio.h>
#include <string.h>
```

```
3 | #include <math.h>
4 | #include <stdlib.h>
5 |
6 ▼ int main() {
7 |
8 ▼     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
9 |     return 0;
10 | }
11 |
```

Line: 1 Col: 1

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