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The Virtual Learning Environment for Computer Programming

## Frequencies on a board

P66664_en
We have a board with $m$ rows and $n$ columns. In each board cell there is a digit ( $0, \ldots$, $9)$. Write a program that computes the frequency of each digit in each of the $n$ columns of the board. The number of rows of a board can be very large.

## Input

The input is a series of cases. Each case consists of two integers greater than zero $m$ and $n$ denoting, respectively, the number of rows and columns on the board, followed by a row-by-row description of the board's digits.

## Output

For each case in the input, a frequency table. The table has ten rows, respectively representing the digits $0, \ldots, 9$ and $n$ columns. The table value in row $d$ column $j$ should be the frequency of digit $d$ in column $j$ of the corresponding input board. A blank line appears after the frequency table.

## Sample input

```
6 3
0 1 0
6 8 5
4 2
0 1 5
595
0 1
54
1 0}
3 0 0
4 0 0
670}
8 5 5
5
02468
3 1
7
8
9
```

Sample output
$\begin{array}{lll}3 & 0 & 1\end{array}$
$\begin{array}{lll}0 & 2 & 1\end{array}$
$\begin{array}{lll}0 & 1 & 0\end{array}$
$0 \begin{array}{lll}0 & 0 & 0\end{array}$
100
$\begin{array}{lll}1 & 0 & 3\end{array}$
100
$0 \quad 0 \quad 0$
0110
$0 \quad 21$
$\begin{array}{llll}1 & 0 & 4 & 4\end{array}$
$0 \begin{array}{llll}0 & 1 & 0 & 0\end{array}$
$\begin{array}{llll}1 & 0 & 0 & 0\end{array}$
$\begin{array}{llll}0 & 1 & 0 & 0\end{array}$
$\begin{array}{llll}1 & 0 & 0 & 0\end{array}$
$\begin{array}{llll}0 & 1 & 1 & 1\end{array}$
$\begin{array}{llll}1 & 0 & 0 & 0\end{array}$
$\begin{array}{llll}0 & 1 & 0 & 0\end{array}$
10000
$\begin{array}{llll}0 & 1 & 0 & 0\end{array}$
$\begin{array}{lllll}1 & 0 & 0 & 0 & 0\end{array}$
$0 \begin{array}{lllll}0 & 0 & 0 & 0\end{array}$
$\begin{array}{lllll}0 & 1 & 0 & 0 & 0\end{array}$
$\begin{array}{lllll}0 & 0 & 0 & 0 & 0\end{array}$
$0 \quad 0 \quad 1 \quad 0 \quad 0$
$0 \begin{array}{llll}0 & 0 & 0 & 0\end{array} 0$
$0 \begin{array}{lllll}0 & 0 & 0 & 1 & 0\end{array}$
$0 \quad 0 \quad 0 \quad 0 \quad 0$
$\begin{array}{lllll}0 & 0 & 0 & 0 & 1\end{array}$
$0 \quad 0 \quad 0 \quad 0 \quad 0$

## Problem information

Author: Pro1
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