Problem F

The Last Non-zero Digit.

Input: Standard Input
Output: Standard Output
Time Limit: 20 seconds

In this problem you will be given two decimal integer number **N, M**. You will have to find the last non-zero digit of the ${}^{N}\mathbf{P}_{\mathbf{M}}$. This means no of permutations of **N** things taking **M** at a time.

Input

The input file contains several lines of input. Each line of the input file contains two integers **N (0<=N<=20000000)**, **M (0<=N)**. Input is terminated by end-of-file.

Output

For each line of the input file you should output a single digit, which is the last non-zero digit of ${}^{N}\mathbf{P}_{\mathbf{M}}$. For example, if ${}^{N}\mathbf{P}_{\mathbf{M}}$ is 720 then the last non-zero digit is 2. So in this case your output should be 2.

Sample Input

```
10 10
10 5
25 6
```

Sample Output

```
8
4
2
```

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