D. Sum and Sum
Time limited: 5 seconds

Problem Description

Minh counts the number of A with $0 <= A < 10^n$ such that the sum of the digits of A is the sum of the digits of A * m. Because he is so tired so Minh ask you help him.

Input

There are several lines in each line that are 2 integer number n, m ($1 <= n <= 18, 1 <= m <= 100$)

Output

For each test print a line is the answer

Example

18 1   1000000000000000000
1 2   2