Problem E: Exponentiation

Problems involving the computation of exact values of very large magnitude and precision are common. For example, the computation of the national debt is a taxing experience for many computer systems.

This problem requires that you write a program to compute the exact value of \mathbb{R}^n where \mathbb{R} is a real number (0.0 < \mathbb{R} < 99.999) and \mathbb{R} is an integer such that \mathbb{R} < \mathbb{R} < 25.

Input

The input will consist of a set of pairs of values for R and n. The R value will occupy columns 1 through 6, and the n value will be in columns 8 and 9.

Output

The output will consist of one line for each line of input giving the exact value of \mathbb{R}^n . Leading zeros and insignificant trailing zeros should be suppressed in the output.

Sample Input

95.123 12 0.4321 20 5.1234 15 6.7592 9 98.999 10 1.0100 12

Sample Output

```
548815620517731830194541.899025343415715973535967221869852721\\ .00000005148554641076956121994511276767154838481760200726351203835429763013462401\\ 43992025569.928573701266488041146654993318703707511666295476720493953024\\ 29448126.764121021618164430206909037173276672\\ 90429072743629540498.107596019456651774561044010001\\ 1.126825030131969720661201
```