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 R^n where R is a real number $(0.0 < R < 99.999)$ and n is an integer such that $0 < n \leq 25$.

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 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
29448126.76412102161816443020690903717327667
904290727436295404981.107596019456651774561044010001
1.126825030131969720661201
```