

Exponentiation

Time Limit: 500MS

Memory Limit: 10000K

Total Submissions: 149081 Accepted: 36396

Description

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 should be suppressed in the output. Insignificant trailing zeros must not be printed. Don't print the decimal point if the result is an integer.

Sample Input

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

Sample Output

```
548815620517731830194541.89902534341571597353596722
1869852721
.00000005148554641076956121994511276767154838481760
200726351203835429763013462401
43992025569.928573701266488041146654993318703707511
666295476720493953024
29448126.764121021618164430206909037173276672
90429072743629540498.107596019456651774561044010001
1.126825030131969720661201
```

Hint

If you don't know how to determine wheather encountered the end of input:
 s is a string and n is an integer

C++

```
while(cin>>s>>n)
```

```
{
```

```
...
```

```
}
```

c

```
while(scanf("%s%d", s, &n)==2) //to see if the scanf read in as many items
as you want
```

```
/*while(scanf("%s%d", s, &n)!=EOF) //this also work */
```

```
{
```

```
...
```

```
}
```