Problem G: Root of the Problem

Source file: `root.{c, cpp, java}`

Input file: `root.in`

Given positive integers B and N, find an integer A such that A^N is as close as possible to B. (The result A is an approximation to the Nth root of B.) Note that A^N may be less than, equal to, or greater than B.

Input: The input consists of one or more pairs of values for B and N. Each pair appears on a single line, delimited by a single space. A line specifying the value zero for both B and N marks the end of the input. The value of B will be in the range 1 to 1,000,000 (inclusive), and the value of N will be in the range 1 to 9 (inclusive).

Output: For each pair B and N in the input, output A as defined above on a line by itself.

Example Input:	Example Output:
4 3	1
5 3	2
27 3	3
750 5	4
1000 5	4
2000 5	4
3000 5	5
1000000 5	16
0 0	

Last modified on October 29, 2006 at 11:04 AM.