
Logarithms

P90133_en

Write a program that computes logarithms in several bases.

Input

Input consists of a sequence of pairs of natural numbers b and n , such that $b \geq 2$ and $n \geq 1$.

Output

For every pair, print $\lfloor \log_b n \rfloor$.

Sample input

```
2 8
2 9
2 15
2 16
3 6
10 1
10 10
10 100
10 1000
```

Sample output

```
3
3
3
4
1
0
1
2
3
```

Problem information

Author : Salvador Roura

Translator : Carlos Molina

Generation : 2023-07-14 18:26:11

© Jutge.org, 2006–2023.

<https://jutge.org>