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A. Bear and Big Brother

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

Bear Limak wants to become the largest of bears, or at least to become larger than his brother Bob.

Right now, Limak and Bob weigh a and b respectively. It's guaranteed that Limak's weight is smaller than or equal to his brother's weight.

Limak eats a lot and his weight is tripled after every year, while Bob's weight is doubled after every year.

After how many full years will Limak become strictly larger (strictly heavier) than Bob?

Input

The only line of the input contains two integers a and b ($1 \leq a \leq b \leq 10$) — the weight of Limak and the weight of Bob respectively.

Output

Print one integer, denoting the integer number of years after which Limak will become strictly larger than Bob.

Examples

input	Copy
4 7	
output	Copy
2	
input	Copy
4 9	
output	Copy
3	
input	Copy
1 1	
output	Copy
1	

Note

In the first sample, Limak weighs 4 and Bob weighs 7 initially. After one year their weights are $4 \cdot 3 = 12$ and $7 \cdot 2 = 14$ respectively (one weight is tripled while the other one is doubled). Limak isn't larger than Bob yet. After the second year weights are 36 and 28, so the first weight is greater than the second one. Limak became larger than Bob after two years so you should print 2.

In the second sample, Limak's and Bob's weights in next years are: 12 and 18, then 36 and 36, and finally 108 and 72 (after three years). The answer is 3. Remember that Limak wants to be larger than Bob and he won't be satisfied with equal weights.

Codeforces Round #405 (rated, Div. 2, based on VK Cup 2017 Round 1).

Finished

Practice



→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest

→ Submit?

Language: Java 1.8.0_241

Choose file: Choose File No file chosen

Be careful: there is 50 points penalty for submission which fails the pretests or resubmission (except failure on the first test, denial of judgement or similar verdicts). "Passed pretests" submission verdict doesn't guarantee that the solution is absolutely correct and it will pass system tests.

Submit

→ Last submissions

Submission	Time	Verdict
132481289	Oct/20/2021 01:54	Accepted
132481176	Oct/20/2021 01:48	Wrong answer on test 5



→ Problem tags

implementation *800

No tag edit access

In the third sample, Limak becomes larger than Bob after the first year. Their weights will be 3 and 2 then.

[→ Contest materials](#)

- Announcement 
- Tutorial (en) 

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