Log2

Input file:	standard input
Output file:	standard output
Time limit:	1 second
Memory limit:	256 megabytes

Given a number N. Print $\lfloor log_2(N) \rfloor$.

Note: Solve this problem using recursion.

Input

Only one line containing a number N $(1 \leq N \leq 10^{18})$.

Output

Print the answer required above.

Examples

standard input	standard output
1	0
8	3