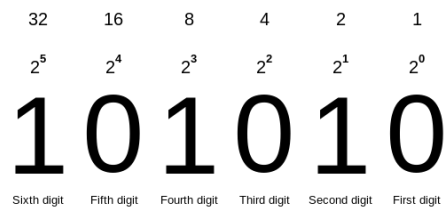


14 Power of 2

6 points

Introduction

In Computer Science we deal daily with binary numbers. As you may know a binary number is represented in a row of bits that could have a value of 0 or 1. It is assigned to each bit a position number, ranging from zero to N-1, where N is the number of bits in the binary representation used. Usually, this is simply the exponent for the corresponding bit weight in base-2 (such as in $2^{31}..2^0$).



Consider the decimal number 42, as an example, its representation in binary is 101010. Meaning that the position of 2^5 is 1, 2^4 is 0, 2^3 is 1, 2^2 is 0, 2^1 is 1 and 2^0 is 0. So, the exponent of the highest power of 2 is 5 (2^5).

Given a decimal number find out the exponent of the highest power of 2.

Input

The input will be a single positive integer number higher than 0.

Output

Print out the position of first one from left in binary.

Example 1

Input

5

Output

2

Example 2

Input

10

Output

3

