

Sharmeen and binary number

Sharmeen, the little girl learned about binary numbers recently. But she is unable to handle it, if the number becomes large. Her friend Mozahid gave her a task to find the number of set bits in a given binary number. As the number can be very large, she can't cope with the solution of this problem. As a programmer, it's your duty to help her.

A binary number is a number which contains only '0' and '1'. Set bit means the bit which have the value '1'. For example a binary number '1011' has 3 set bits.

It can contain leading zeros.

Input

Given a large binary number of length n . It can have at most 10^5 digits.

Output

Output the number of set bits in the binary number.

Example

Input:

1011

Output:

3