# Problem E  –  Egyptian binary system

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Explorers in ancient Egypt have found evidence of what may be the first used binary system to encode data not so far from the Nile river.

A hieroglyphic $S$ was found containing what looks like a binary system as it is conformed of a sequence of only two different shapes: the "eye" and the "spear". Linguists that arrived to the place to study the hieroglyphic are amazed since these shapes resemble the "0" and "1" that we use to represent binary symbols. Going further, they have found that there are some messages encoded as if this hieroglyphic contained data that old egyptians wanted us to discover. Some studies revealed that the hieroglyphic was made in different ages, and the data written from age to age always represented an odd number in its binary form if you took the "eye" as a 0 and the "spear" as a 1.

The data that revealed this amazing discovery is missing, right now there is no way to determine in what age a shape from the hieroglyphic was written, this is why scientists have asked for your help. They are aware that it is very difficult to obtain all the data from nothing, so they are only interested in determining in how many ways you can take a substring from the hieroglyphic such that the data you took may have been written in the same age; all what scientists know is that the data never started with an "eye" and it always represented an odd number in its binary form.

## Input

The input consists of a single line that contains a string $S$ representing the hieroglyphic. $S$ contains only the '0' and '1' symbols. A '0' represent an "eye" in the hieroglyphic, and a '1' represents a "spear". $S$ will contain no more than $10^6$ characters.

## Output

Output a single line with an integer indicating the number of ways you can take the binary representation of an odd number based on the description above.

| Sample input 1 | Sample output 1 |
|---|---|
| 1 | 1 |

| Sample input 2 | Sample output 2 |
|---|---|
| 0 | 0 |

| Sample input 3 | Sample output 3 |
|---|---|
| 1010 | 3 |