Problem H
Heximal

Time limit: 5 seconds

Memory limit: 1024 megabytes

Problem Description

The base-6 numeral system is also called the heximal numeral system. We say a string $h_k h_{k-1} \cdots h_1 h_0$ is a heximal number if $h_i \in \{0, 1, 2, 3, 4, 5\}$ for every $i \in \{0, 1, \ldots, k\}$ and $h_k = 0$ implies $k = 0$. The value represented by $h_k h_{k-1} \cdots h_1 h_0$ in the heximal numeral system is $\sum_{i=0}^{k} h_i 6^i$. For example, the value of the heximal number 12345 equals the value of the decimal number $1865 = 1 \times 6^4 + 2 \times 6^3 + 3 \times 6^2 + 4 \times 6 + 5$.

Harry asks you to convert a very large base-10 number N to base-6. Since the conversion result can be very long, it is too hard for Harry to verify the result by himself. So, you just need to tell Harry the length of the conversion result. For example, if $N = 1865$, then you just need to tell Harry the length of the conversion result is 5.

Input Format

The input contains exactly one integer N in decimal.

Output Format

Output the length of the base-6 representation of N.

Technical Specification

$0 \leq N < 10^{500000}$.

Sample Input 1

```
1865
```

Sample Output 1

```
5
```

Sample Input 2

```
6
```

Sample Output 2

```
2
```

Sample Input 3

```
5
```

Sample Output 3

```
1
```