

# 1 Divisibility (divisibility.{c,cc,java})

## 1.1 Description

On the planet Zoop, numbers are represented in base 62, using the digits

0, 1, ..., 9, A, B, ..., Z, a, b, ..., z

where

A (base 62) = 10 (base 10)

B (base 62) = 11 (base 10)

⋮

z (base 62) = 61 (base 10).

Given the digit representation of a number  $x$  in base 62, your goal is to determine if  $x$  is divisible by 61.

## 1.2 Input

The input test file will contain multiple cases. Each test case will be given by a single string containing only the digits '0' through '9', the uppercase letters 'A' through 'Z', and the lowercase letters 'a' through 'z'. All strings will have a length of between 1 and 10000 characters, inclusive. The end-of-input is denoted by a single line containing the word "end", which should not be processed. For example:

```
1v3
2P6
IsThisDivisible
end
```

## 1.3 Output

For each test case, print "yes" if the number is divisible by 61, and "no" otherwise. For example:

```
yes
no
no
```

In the first example,  $1v3 = 1 \times 62^2 + 57 \times 62 + 3 = 7381$ , which is divisible by 61.

In the second example,  $2P6 = 2 \times 62^2 + 25 \times 62 + 6 = 9244$ , which is not divisible by 61.