

# Will it ever stop

When Bob was in library in University of Warsaw he saw on one of facades caption : "Will it ever stop?" and below some mysterious code:

```
while n > 1
  if n mod 2 = 0 then
    n:=n/2
  else
    n:=3*n+3
```

Help him finding it out !

## Input

In first line one number  $n \leq 10^{14}$ .

## Output

Print "TAK" if program will stop, otherwise print "NIE"

## Example

**Input:**

4

**Output:**

TAK