Simple game? P96833_en

Dotzè Concurs de Programació de la UPC - Final (2014-10-01)

Petr and Tourist are playing an interesting game called *Simple*. Initially there are n tokens, which are taken away by alternating turns with the following rules:

1. Petr plays first, and he cannot take away all the tokens in the first turn.

2. In each of the remaining turns the player cannot take away more than $2x$ tokens, where x is the number of tokens removed in the last turn.

3. The player that manages to take away the last token wins.

Since the players of this game are bad programmers, they need your help. Given n, who will win the game assuming perfect play?

Input

Input consists of several cases, each with an n between 2 and 10^6.

Output

For every n, print the name of the winner.

Sample input

```
2
4
8
16
```

Sample output

```
Tourist
Petr
Tourist
Petr
```

Problem information

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