
Two-three-balanced numbers**X54277_en**

An integer greater than zero is *two-three-balanced* when it can be divided by two as many times as times can be divided by three. For instance, numbers 5 (zero times divisible by two and zero times divisible by three), 42 (once) and 396 (twice) are two-three-balanced. Write a *recursive* function `is_two_three_balanced()` that given an integer greater than zero n returns `true` when n is two-three-balanced and returns `false` otherwise.

Exam score: 2 Automatic part: 40%

Input

A sequence of integers greater than zero.

Output

For each number in the input, a line showing whether the number is two-three-balanced.

Sample input

```
5
1
2
3
42
28
396
```

Sample output

```
yes
yes
no
no
yes
no
yes
```

Observation

Complete the following program. Function `is_two_three_balanced()` must be recursive.

```
//pre: n > 0
//post: returns true when n is two-three-balanced. Returns false otherwise
bool is_two_three_balanced(int n) {
    .....
    .....

}

int main() {
    int n;
    while (cin >> n) {
        if (is_two_three_balanced(n)) cout << "yes";
        else cout << "no";
        cout << endl;
    }
}
```

Problem information

Author : Pro1

Generation : 2022-01-04 10:04:18

© *Jutge.org*, 2006–2022.

<https://jutge.org>