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## Practical numbers

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A practical number is a natural  $n$  such that all smaller naturals can be represented as sums of distinct divisors of  $n$ . For instance, 12 is a practical number, because all numbers from 1 to 11 can be expressed as sums of 1, 2, 3, 4, and 6:  $5 = 2 + 3$ ,  $7 = 1 + 6$ ,  $8 = 2 + 6$ ,  $9 = 3 + 6$ ,  $10 = 1 + 3 + 6$ , and  $11 = 2 + 3 + 6$ .

Given several naturals, are them practical numbers?

### Input

Input consists of at most 50 naturals, all between 1 and  $10^6$ .

### Output

For each given natural, print “yes” or “no” depending on whether it is a practical number or not.

#### Sample input 1

```
1
3
12
999998
999999
1000000
```

#### Sample output 1

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

### Problem information

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