



Chef and Semi-Primes

Problem Code: **CHEFPRMS**



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as well.

Chef likes prime numbers. However, there is one thing he loves even more. Of course, it's semi-primes! A *semi-prime number* is an integer which can be expressed as a product of two distinct primes. For example, $15 = 3 \cdot 5$ is a semi-prime number, but 1 , $9 = 3 \cdot 3$ and 5 are not.

Chef is wondering how to check if an integer can be expressed as a sum of two (not necessarily distinct) semi-primes. Help Chef with this tough task!

Input

- The first line of the input contains a single integer T denoting the number of test cases. The description of T test cases follows.
- The first and only line of each test case contains a single integer N .

Output

For each test case, print a single line containing the string "YES" if it is possible to express N as a sum of two semi-primes or "NO" otherwise.

Constraints

- $1 \leq T \leq 200$
- $1 \leq N \leq 200$

Example Input

```
3
30
45
62
```

Example Output

```
YES
YES
NO
```

Explanation

Example case 1: $N = 30$ can be expressed as $15 + 15 = (3 \cdot 5) + (3 \cdot 5)$.

My Submissions

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All Submissions

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Example case 2: 45 can be expressed as $35 + 10 = (5 \cdot 7) + (2 \cdot 5)$.

Example case 3: 62 cannot be expressed as a sum of two semi-primes.

Author: 6★ [mgch \(/users/mgch\)](#)

Tags: [mgch \(/tags/problems/mgch\)](#)

Date Added: 12-10-2018

Time Limit: 1 secs

Source Limit: 50000 Bytes

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