Pairs of a sequence (1)   P85480_en

Write a program that reads sequences of natural numbers, and for each one tells if it has two elements such that their sum is a prime number.

Input

Input consists of several sequences, each one in a line. Each sequence consists of a natural number n, followed by n natural numbers $x_1, \ldots, x_n$.

Output

For each input sequence, print "yes" or "no" depending on if it is possible to find two elements x_i and x_j (with $i \neq j$) such that $x_i + x_j$ is a prime number.

Observation

Using arrays, it is possible to precompute which numbers are prime and which are not up to a certain maximum. In this exercice it is not possible because we do not know any maximum, and it is not necessary for efficiency reasons because all the numbers are small enough.

Sample input

```
6   3 5 7 15 13 1
2   0 2
```

Sample output

```
no
yes
```

Problem information

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Generation : 2023-07-14 18:22:11

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