

A. Funky Numbers

time limit per test: 2 seconds

memory limit per test: 256 megabytes

input: standard input

output: standard output

As you very well know, this year's funkiest numbers are so called triangular numbers (that is, integers that are representable as $\frac{k(k+1)}{2}$, where k is some positive integer), and the coolest numbers are those that are representable as a sum of two triangular numbers.

A well-known hipster Andrew adores everything funky and cool but unfortunately, he isn't good at maths. Given number n , help him define whether this number can be represented by a sum of two triangular numbers (not necessarily different)!

Input

The first input line contains an integer n ($1 \leq n \leq 10^9$).

Output

Print "YES" (without the quotes), if n can be represented as a sum of two triangular numbers, otherwise print "NO" (without the quotes).

Examples

input
256
output
YES

input
512
output
NO

Note

In the first sample number .

In the second sample number 512 can not be represented as a sum of two triangular numbers.