

COCI '10 Contest 7 #1 Šećer

Time limit: 1.0s **Memory limit:** 32M

Mirko works in a sugar factory as a delivery boy. He has just received an order: he has to deliver **exactly** N kilograms of sugar to a candy store on the Adriatic coast. Mirko can use two types of packages, the ones that contain **3 kilograms**, and the ones with **5 kilograms** of sugar.

Mirko would like to take as few packages as possible. For example, if he has to deliver 18 kilograms of sugar, he could use six 3-kilogram packages. But, it would be better to use three 5-kilogram packages, and one 3-kilogram package, resulting in the total of four packages.

Help Mirko by finding the minimum number of packages required to transport **exactly** N kilograms of sugar.

Input Specification

The first and only line of input contains one integer N ($3 \leq N \leq 5\,000$).

Output Specification

The first and only line of output should contain the minimum number of packages Mirko has to use. If it is impossible to deliver exactly N kilograms, output `-1`.

Sample Input 1

4

Sample Output 1

-1

Sample Input 2

9

Sample Output 2

3

Sample Input 3

18

Sample Output 3

4