Sugar

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

The first and only line of input contains one integer N ($3 \leq N \leq 5000$).

Output

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	Sample output
4	-1
9	3
18	4