

# 122A - Lucky Division

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## 1 Problem

Problem Description : <https://codeforces.com/contest/122/problem/A>

## 2 Objective

Given single integer  $n$ , decide whether that integer considered as lucky number or not. A number is considered to be lucky if that number only contain either 4 or 7. If it's not satisfy the condition, then the number is considered to be almost lucky if that number is divisible by some lucky number. For example, number 47 is a lucky number whereas 48 is not. 94 is an almost lucky number because it's divisible by 47. Print "YES" if  $n$  is lucky or at least almost lucky number. Else, print "NO".

## 3 Solution

We can use brute force approach to find every possible solution by checking whether the given integer  $n$  is divisible by 4, 7, 47, 74, 447, 474, 477, 744, 747, or 774. We don't need to check if  $n$  is divisible by 77 since 77 is also divisible by 7.

## 4 Code

```
#include <bits/stdc++.h>
using namespace std;

int main() {
    int n;
    cin >> n;
    if(n%4==0 || n%7==0 || n%47==0 || n%74==0 || n%447==0 || n%474==0
        || n%477==0 || n%744==0 || n%747==0 || n%774==0) {
        cout << "YES";
        return 0;
    }
    else cout << "NO";
    return 0;
}
```