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Best Divisor

by [shef_2318](#)

Problem

Submissions

Leaderboard

Discussions

Your submission will run against only preliminary test cases. Full test cases will run at the end of the day.

Kristen loves playing with and comparing numbers. She thinks that if she takes two different positive numbers, the one whose digits sum to a larger number is *better* than the other. If the sum of digits is equal for both numbers, then she thinks the smaller number is *better*. For example, Kristen thinks that **13** is better than **31** and that **12** is better than **11**.

Given an integer, n , can you find the divisor of n that Kristin will consider to be the best?

Input Format

A single integer denoting n .

Constraints

- $0 < n \leq 10^5$

Output Format

Print an integer denoting the best divisor of n .

Sample Input 0

12

Sample Output 0

6

Explanation 0

The set of divisors of **12** can be expressed as **{1, 2, 3, 4, 6, 12}**. The divisor whose digits sum to the largest number is **6** (which, having only one digit, sums to itself). Thus, we print **6** as our answer.

[f](#) [t](#) [in](#)Contest ends in **5 days**Submissions: [3134](#)

Max Score: 20

Difficulty: Easy

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C#



```
1 using System;
2 using System.Collections.Generic;
3 using System.IO;
4 using System.Linq;
5 class Solution {
6
7     static void Main(String[] args) {
8         int n = Convert.ToInt32(Console.ReadLine());
9     }
```

```
10 int max_sum = 0, menor_divisor = int.MaxValue;
11 int sum = 0;
12
13 for (int i = 1; i <= n / 2; i++)
14 {
15     if (n % i == 0)
16     {
17         sum = i.ToString().Sum(e => e - '0');
18
19         if (sum > max_sum)
20         {
21             max_sum = sum;
22             menor_divisor = i;
23         }
24         else if (sum == max_sum)
25         {
26             if (i < menor_divisor)
27             {
28                 menor_divisor = i;
29             }
30         }
31     }
32 }
33
34 sum = n.ToString().Sum(e => e - '0');
35
36 if (sum > max_sum)
37 {
38     max_sum = sum;
39     menor_divisor = n;
40 }
41 else if (sum == max_sum)
42 {
43     if (n < menor_divisor)
44     {
45         menor_divisor = n;
46     }
47 }
48
49 Console.WriteLine(menor_divisor);
50 }
51 }
52 }
```

Line: 49 Col: 46

 Upload Code as File☐ Test against custom input

Run Code

Submit Code

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