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 is better than and that is better than .

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

Input Format

A single integer denoting .

Constraints

Output Format

Print an integer denoting the best divisor of .

Sample Input 0

12

Sample Output 0

6

Explanation 0

The set of divisors of can be expressed as . The divisor whose digits sum to the largest number is (which, having only one digit, sums to itself). Thus, we print as our answer.

Submissions: 179

Max Score: 10

Difficulty: Easy

Rate This Challenge:

More

1

#!/bin/python3

2

3

Import math

4

Import os

5

Import random

6

Import re

7

Import sys

8

Def best\_divisor(n):

9

Def digit\_sum(num):

10

Return sum(int(digit) for digit in str(num))

11

12

Best\_divisor = 1

13

Max\_digit\_sum = 1

14

15

For I in range(2, n + 1):

16

If n % I == 0:

17

Current\_digit\_sum = digit\_sum(i)

18

If current\_digit\_sum > max\_digit\_sum or (current\_digit\_sum == max\_digit\_sum and I <best\_divisor):

19

Max\_digit\_sum = current\_digit\_sum

20

Best\_divisor = i

21

22

Return best\_divisor

23

N = int(input())

24

Result = best\_divisor(n)

25

Print(result)

26

27

28

Line: 27 Col: 1

Run Code Submit CodeUpload Code as File

Test against custom input

Testcase 0

Congratulations, you passed the sample test case.

Click the Submit Code button to run your code against all the test cases.

Input (stdin)

12

Your Output (stdout)

6

Expected Output

6