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Days of
Code

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Your Day 19: Interfaces submission got 30.00 points. ⊞ Share   Tweet

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Day 19: Interfaces ☐

⬛ **by Shafaet**

Problem	Submissions	Leaderboard	Discussions	Editorial ☐	Tutorial

Objective

Today, we're learning about Interfaces. Check out the Tutorial tab for learning materials and an instructional video!

Task

The *AdvancedArithmetic* interface and the method declaration for the abstract *int divisorSum(int n)* method are provided for you in the editor below. Write the *Calculator* class,

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Max Score 30

Need Help?

which implements the *AdvancedArithmetic* interface. The implementation for the *divisorSum* method must be *public* and take an integer parameter, , and return the sum of all its divisors.

Note: Because we are writing multiple classes in the same file, do not use an access modifier (e.g.: public) in your *class declaration* (or your code will not compile); however, you must use the *public* access modifier before your *method declaration* for it to be accessible by the other classes in the file.

Input Format

A single line containing an integer, .

Constraints

-

Output Format

You are not responsible for printing anything to stdout. The locked *Solution* class in the editor below will call your code and print the necessary output.

Sample Input

```
6
```

Sample Output

```
I implemented: AdvancedArithmetic
12
```

Explanation

The integer is evenly divisible by , , , and . Our *divisorSum* method should return the sum of these numbers, which is . The Solution class then prints on the first line, followed by the sum returned by *divisorSum* (which is) on the second line.

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Suggest Edits

Current Buffer (saved locally, editable)

Java 7

```java
1  import ↔;
3
4  interface AdvancedArithmetic{
5      int divisorSum(int n);
6  }
7  //Write your code here
8  class Calculator implements AdvancedArithmetic {
9      public int divisorSum(int n) {
10         int ds = 0;
11         for (int i = 1; i <= n; i++) {
12             if (n % i == 0) {
13                 ds += i;
```

```
14              }
15          }
16          return ds;
17      }
18 }
```

```java
19 class Solution {
20
21     public static void main(String[] args) {
22         Scanner scan = new Scanner(System.in);
23         int n = scan.nextInt();
24         scan.close();
25
26         AdvancedArithmetic myCalculator = new Calculator();
27         int sum = myCalculator.divisorSum(n);
28         System.out.println("I implemented: " + myCalculator.getClass().getInterfaces()
   [0].getName() );
29         System.out.println(sum);
30     }
31 }
```

Line: 11 Col: 29

☐ Upload Code as File   ☐ Test against custom input   Run Code

Congrats, you solved this challenge!

Challenge your friends: ☐ ☐ ☐

☐ Test Case #0   ☐ Test Case #1   ☐ Test Case #2

☐ Test Case #3   ☐ Test Case #4   ☐ Test Case #5

☐ Test Case #6

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Next Challenge

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