

# Day 19: Interfaces

## 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 `divisorSum(n)` method are provided for you in the editor below.

Complete the implementation of `Calculator` class, which implements the `AdvancedArithmetic` interface. The implementation for the `divisorSum(n)` method must return the sum of all divisors of  $n$ .

## Input Format

A single line containing an integer,  $n$ .

## Constraints

- $1 \leq n \leq 1000$

## Output Format

You are not responsible for printing anything to stdout. The locked template code 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 **6** is evenly divisible by **1, 2, 3**, and **6**. Our `divisorSum` method should return the sum of these numbers, which is  $1 + 2 + 3 + 6 = 12$ . The Solution class then prints **I implemented: AdvancedArithmetic** on the first line, followed by the sum returned by `divisorSum` (which is **12**) on the second line.