1. Armstrong Number

Problem: Write a Java program to check if a given number is an Armstrong number.

Test Cases:

Input: 153

Output: true

Input: 123

Output: false  
  
EXPLANATION:  
The provided code is an implementation of the Armstrong number problem in Java. An Armstrong number is a number where the sum of the cubes of its digits is equal to the number itself. The code consists of two classes: Armstrong and Question1.

Here's a detailed explanation of the code and its flow:Explanation:

1. The Armstrong class is responsible for the core logic of the Armstrong number problem.

The constructor Armstrong(int iNum) initializes the iUser instance variable with the input number.

The Counter(int iNum) method calculates the number of digits in the input number and stores it in the iCount instance variable.

The Check(int iNum) method checks if the input number is an Armstrong number. It calculates the sum of the cubes of the digits and compares it with the input number.

The Question1 class is the main entry point of the program.

In the main() method, the user is prompted to enter a number.

An instance of the Armstrong class is created with the input number.

The Counter() method is called to get the number of digits in the input number.

The Check() method is called to determine if the input number is an Armstrong number.

The result (true or false) is printed to the console.

The code follows a clear and structured flow, with the Armstrong class encapsulating the core logic and the Question1 class handling the user interaction and program execution. The use of instance variables and methods within the Armstrong class ensures modularity and reusability of the code.  
  


