

Name: \_\_\_\_\_

Redg.No: \_\_\_\_\_

### **Program logic Description:**

Example: The program runs until number  $n > 0$ . In each iteration, it adds the rightmost digit ( $n \% 10$ ) to sum and updates the number to  $n / 10$ . In the end, after the loop terminates if the sum is equal to the original number, then the program prints "a perfect number" otherwise, prints "not a perfect number".

### **Output:**

**Test case 1:** Enter a large number: **12134616235835**

The unique digits present in 12134616235835 are 1, 2, 3, 4, 6, 5, 8.

The largest number possible out of these unique digits is 8654321.

**Test case 2:** Enter a large number: **11131116111811**

**Test case 3:** Enter a large number: **7**

**Test case 4:** Enter a large number: **1111111111**

**Test case 5:** Enter a large number: **1253478690**

**Test case 6:** Enter a large number: **000000000**

**Test case 7:** Enter a large number: **1222222222**

**Test case 8:** Enter a large number: **3333333335**