Write a program to identify if the number is Armstrong number or not

Description

Get an input number from user and check whether the given number is an Armstrong number or not.

E.g. Let the number be 1634,

 Here 1^4 + 6^4 + 3 ^4 + 4^4 = 1634

Therefore, this is an Armstrong number

Input

153

Output

Armstrong number

Input

121

Output
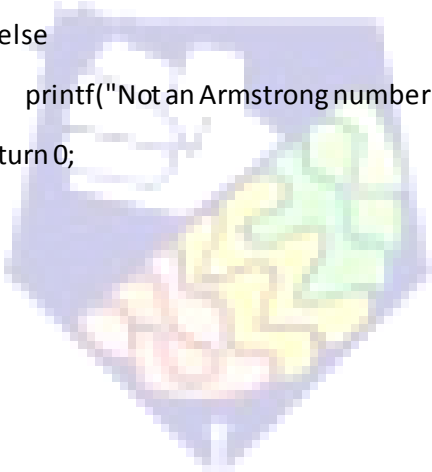
Not an Armstrong number

C Program

```c
#include <stdio.h>

#include<math.h>

int main()

{

  int num, copy, rem, result = 0, n = 0 ;

  printf("Enter a number: ");

  scanf("%d", &num);

  copy = num;

  while (num != 0)

  {

    num /= 10;
```

```
        n++;
    }
    num = copy;
    while (num != 0)
    {
        rem = num%10;
        result += pow(rem, n);
        num /= 10;
    }
    if(result == copy)
        printf("Armstrong number");
    else
        printf("Not an Armstrong number");
return 0;
}
```

C++ Program

```cpp
#include <iostream>
#include<math.h>
using namespace std;
int main()
{
    int num, copy, rem, result = 0, n = 0 ;
    cout<<"Enter a number: ";
    cin>>num;
    copy = num;
    while (num != 0)
    {
        num /= 10;
        n++;
    }
    num = copy;
    while (num != 0)
    {
        rem = num%10;
        result += pow(rem, n);
        num /= 10;
    }
    if(result == copy)
        cout<<"Armstrong number";
    else
        cout<<"Not an Armstrong number";
return 0;
}
```

Java

```java
import java.util.Scanner;

public class Main
{
        public static void main(String[] args) {
                Scanner sc = new Scanner(System.in);
    System.out.print("Enter a number : ");
    int num = sc.nextInt();
    int copy = num;
    int result=0;
    int n=0;
    int rem;
    while (num != 0)
    {
      num /= 10;
      n++;
    }
    num = copy;
    while (num != 0)
    {
      rem = num%10;
      int mul=1;
     for(int i=1;i<=n;i++) {
      mul=mul*rem;
     }
    result=result+mul;
      num /= 10;
    }
    if(result==copy)
```
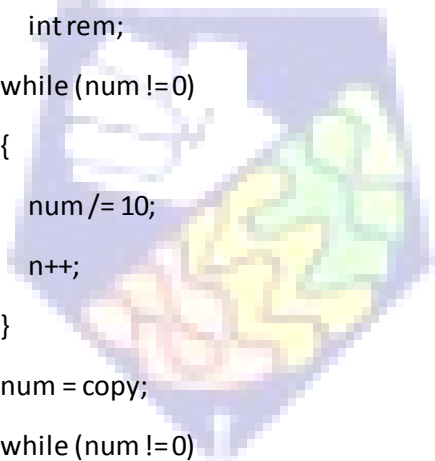
```
System.out.println("Armstrong Number");

else

System.out.println("Not Armstrong number");
        }
}
```

Python

```python
import math

num=int(input("Enter a number: "))

value = [int(d) for d in str(num)]

result = 0

for i in range(0, len(value)):

    result = result + math.pow(value[i], len(value))

if result==num:

    print("Armstrong number")

else:

    print("Not an armstrong number")
```