

```
// Day 19 coding Statement : 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
```

```
#include <iostream>
```

```
#include <cmath>
```

```
using namespace std;
```

```
int main() {
```

```
    int num, originalNum, remainder, n = 0, result = 0, power;
```

```
    cout << "Enter an integer: ";
```

```
    cin >> num;
```

```
    originalNum = num;
```

```
    while (originalNum != 0) {
```

```
        originalNum /= 10;
```

```
        ++n;
```

```
    }
```

```
    originalNum = num;
```

```
    while (originalNum != 0) {
```

```
        remainder = originalNum % 10;
```

```
        power = round(pow(remainder, n));
```

```
        result += power;
```

```
        originalNum /= 10;
```

```
    }
```

```
    if (result == num)
```

```
        cout << "Armstrong number.";
```

```
    else
```

```
        cout << "Not an Armstrong number.";
```

```
    return 0;
```

```
}
```