

- Try various inputs: 10, 100, 1000, 10000, 100000, 1000000. If the input is 100000 or 1000000, does the output match your expectation? If no, how does that happen? How to solve it so that the output match your expectation?

All inputs satisfy the expected outputs except 100000 and 1000000,

```
100000
705082704
Process finished with exit code 0
```

```
1000000
1784293664
Process finished with exit code 0
```

this is because the data type used (`int`) cannot contain such large number, it causes the number to loop back. In order to solve the issue, we can try change the data type to something that could contain more, namely `long long`.

```
int main(){
    //Declare the variables
    long long n,x;
```

But even after using the biggest numerical data type, the number still loops back and we don't get the expected value soooo whatever t\_\_\_\_\_t

```
100000
4463490339
Process finished with exit code 0
```

```
1000000
499463940339
Process finished with exit code 0
```