Status	Finished
Started	Friday, 31 October 2025, 7:05 PM
Completed	Friday, 31 October 2025, 7:30 PM
Duration	25 mins 16 secs

Question **1**

Correct

The k-digit number N is an Armstrong number if and only if the k-th power of each digit sums to N.

Given a positive integer N, return true if and only if it is an Armstrong number.

Example 1:

Input:

153

Output:

true

Explanation:

153 is a 3-digit number, and 153 = 1^3 + 5^3 + 3^3.

Example 2:

Input:

123

Output:

false

Explanation:

123 is a 3-digit number, and 123 != 1^3 + 2^3 + 3^3 = 36.

Example 3:

Input:

1634

Output:

true

Note:

$1 <= N <= 10^8$

Answer: (penalty regime: 0 %)

```c
#include<stdio.h>
#include<math.h>
int main(){
    int num,temp,digit,sum=0,count=0;
    scanf("%d",&num);
    temp=num;
    while(num!=0){
        num/=10;
        count++;
    }
    num=temp;
    while(num!=0){
        digit=num%10;
        num/=10;
        sum=sum+pow(digit,count);
    }
    if(sum==temp){
        printf("true");
    }
    else{
        printf("false");
    }
    return 0;
}
```

	Input	Expected	Got	
✓	153	true	true	✓
✓	123	false	false	✓

Passed all tests! ✓

Question **2**

Correct

Take a number, reverse it and add it to the original number until the obtained number is a palindrome.

Constraints

1<=num<=99999999

Sample Input 1

32

Sample Output 1

55

For example:

Input	Result
32	55
1234	5555

Answer: (penalty regime: 0 %)

```c
1   #include<stdio.h>
2   int main(){
3       int num,digit,reverse=0,temp;
4       scanf("%d",&num);
5       while(1){
6           temp=num;
7           while(num!=0){
8               digit=num%10;
9               num/=10;
10              reverse=reverse*10+digit;
11          }
12          if (temp==reverse){
13              printf("%d",temp);
14              break;
15          }
16          else{
17              num=reverse+temp;
18              reverse=0;
19          }
20      }
```

```
21          return 0;
22
23
24  }
```

	Input	Expected	Got	
✓	32	55	55	✓
✓	1234	5555	5555	✓

Passed all tests! ✓

Question **3**

Correct

Maya, a student in an arts and crafts class, wants to create a pattern using stars (*) in a specific format. She plans to use a program to help her construct the pattern.
 Write a program that takes an integer as input and constructs the following pattern using nested for loops.

Input: 5

Output:
```
*
* *
* * *
* * * *
* * * * *
* * * *
* * *
* *
*
```

Answer: (penalty regime: 0 %)

```c
1  #include<stdio.h>
2  int main(){
3      int num,half_seperator;
4      scanf("%d",&num);
5      for (int i=1;i<=num*2-1;i++){
6          if(i<=num){
7              half_seperator=i;
8          }
9          else{
10             half_seperator=num*2-i;
11         }
12         for (int j=1;j<=half_seperator;j++){
13             printf("* ");
14         }
15         printf("\n");
16     }
17 }
```

	Input	Expected	Got	
✅	5	* *	* *	✅

Passed all tests! ✅