Status	Finished
Started	Tuesday, 4 November 2025, 7:12 PM
Completed	Tuesday, 4 November 2025, 7:52 PM
Duration	40 mins 40 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()
{
    long long n,temp;
    int digits=0;
    long long sum=0;
    int remainder;
    scanf("%lld",&n);
    temp=n;
    while(temp!=0)
    {
        digits++;
        temp/=10;
    }
    temp=n;
    while(temp!=0)
    {
        remainder=temp%10;
        sum+=pow(remainder,digits);
        temp/=10;
    }
     if(sum==n)
        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 %)

```
#include <stdio.h>
long long reverseNumber(long long
{
    long long rev=0;
    while(n!=0)
    {
        rev=rev*10+n%10;
        n/=10;
    }
    return rev;
}
int isPalindrome(long long n)
{
    return n==reverseNumber(n);
}
int main()
{
    long long num,rev,sum;
    scanf("%lld",&num);
    while(1)
```

```
21      {
22          rev=reverseNumber(num);
23          sum=num+rev;
24          if(isPalindrome(sum))
25          {
26              printf("%lld",sum);
27              break;
28          }
29          num=sum;
30      }
31      return 0;
32  }
```

	Input	Expected	Got	
ni	32	55	55	ni
ni	1234	5555	5555	ni

Passed all tests! ni

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
#include <stdio.h>
int main()
{
    int n;
    scanf("%d",&n);
    for (int i=1; i <= n; i++)
    {
        for(int j = 1;j <= i; j++
        {
            printf("* ");
        }
        printf("\n");
    }
    for (int i = n - 1; i >= 1; i
    {
        for(int j = 1; j<= i; j++
        {
            printf("* ");
        }
        printf("\n");
    }
    return 0;
}
```

	Input	Expected	Got	
	5	* *	* *	

Passed all tests!