Status	Finished
Started	Saturday, 1 November 2025, 7:33 PM
Completed	Saturday, 1 November 2025, 8:15 PM
Duration	41 mins 52 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,originalnum,remainder,n=0;
    double result=0.0;
    scanf("%d",&num);
    originalnum=num;
    int temp=num;
    while(temp!=0)
    {
        temp/=10;
        n++;
    }
    temp=num;
    while(temp!=0)
    {
        remainder=temp%10;
        result+=pow(remainder,n);
        temp/=10;
    }
    if((int)result==originalnum)
        printf("true\n");
    else
        printf("false\n");
    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>
int main()
{
    int rn,n,nt=0,i=0;
    scanf("%d",&n);
    do
    {
        nt=n;
        rn=0;
        while(n!=0)
        {
            rn=rn*10+n%10;
            n=n/10;
        }
        n=nt+rn;
        i++;
    }
    while(rn!=nt || i==1);
    printf("%d",rn);
    return 0;
}
```

	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
#include<stdio.h>
int main(void)
{
    int n;
    scanf("%d",&n);
    if(n!=1 || n<=0)
    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! ✓