Status	Finished
Started	Monday, 3 November 2025, 10:04 PM
Completed	Monday, 3 November 2025, 10:36 PM
Duration	31 mins 57 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 n,t,d=0,sum=0;
    scanf("%d",&n);
    t=n;
    while(t){d++;t/=10;}
    t=n;
    while (t){
        int r=t%10;
        sum +=pow(r,d);
        t/=10;
    }
    printf(sum==n?"true":"false");
}
```

	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 reverse (long long n){
    long long r=0;
    while (n){
        r=r*10+n%10;
        n/=10;
    }
    return r;
}
int main (){
    long long n;
    scanf("%lld",&n);
    while(1){
        long long rev = reverse (n);
        if (n==rev){
            printf("%lld",n);
            break;
        }
        n=n+rev;
    }
}
```

```
}
```

	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(){
    int n,i,j;
    scanf("%d",&n);
    for (i=1;i<=n;i++){
        for (j=1;j<=i;j++)
        printf("* ");
        printf("\n");
    }
    for (i=n-1;i>=1;i--){
        for (j=1;j<=i;j++)
        printf("* ");
        printf("\n");
    }
}
```

	Input	Expected	Got	
✓	5	* *	* *	✓

Passed all tests! ✓