Status	Finished
Started	Tuesday, 4 November 2025, 12:06 PM
Completed	Tuesday, 4 November 2025, 12:25 PM
Duration	18 mins 12 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
1   #include<stdio.h>
2   #include<math.h>
3   int main () {
4       int n;
5       scanf ("%d", &n);
6       int x=0 , n2 = n;
7       while (n2!=0)
8       {
9           x++;
10          n2 = n2/10;
11      }
12      int sum = 0;
13      int n3=n,n4;
14      while (n3!=0)
15      {
16          n4=n3%10;
17          sum= sum+pow(n4,x);
18          n3=n3/10;
19      }
20      if(n==sum)
21      {
22          printf("true");
23      }
24      else
25      {
26          printf("false");
27      }
28      return 0;
29  }
```

	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
#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
1  #include <stdio.h>
2  int main () {
3      int n ;
4      scanf("%d", &n);
5      for (int i=1; i<=n;i++)
6      {
7          for (int j=1;j<=i;j++)
8          {
9              printf("* ");
10         }
11         printf("\n");
12     }
13     for(int i=n-1 ; i>=1 ; i--)
14     {
15         for(int j=1; j<=i;j++)
16         {
17             printf("* ");
18         }
19         printf("\n");
20     }
21     return 0;
22 }
```

	Input	Expected	Got	
✓	5	* *	* *	✓

Passed all tests! ✓