

<b>Status</b>	Finished
<b>Started</b>	Tuesday, 4 November 2025, 6:18 PM
<b>Completed</b>	Tuesday, 4 November 2025, 6:42 PM
<b>Duration</b>	24 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  $123 \neq 1^3 + 2^3 + 3^3 = 36$ .

Example 3:

Input:

1634

Output:

true

Note:

$1 \leq N \leq 10^8$

**Answer:** (penalty regime: 0 %)

```

1 #include<stdio.h>
2 #include<math.h>
3 int main()
4 {
5     int n;
6     scanf("%d",&n);
7     int x=0,n2=n;
8     while(n2!=0)
9     {
10        x++;
11        n2=n2/10;
12    }
13    int sum=0;
14    int n3=n,n4;
15    while(n3!=0)
16    {
17        n4=n3%10;
18        sum=sum+pow(n4,x);
19        n3=n3/10;
20    }
21    if(n==sum)
22        printf("true");
23    else
24        printf("false");
25 }
```



	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**

$$1 \leq \text{num} \leq 99999999$$
**Sample Input 1**

32

**Sample Output 1**

55

**For example:**

Input	Result
32	55
1234	5555

**Answer:** (penalty regime: 0 %)

```

1 #include<stdio.h>
2 int main()
3 {
4     int rn,n,nt=0,i=0;
5     scanf("%d",&n);
6     do{
7         nt=n;rn=0;
8         while(n!=0)
9         {
10             rn=rn*10+n%10;
11             n=n/10;
12         }
13         n=nt+rn;
14         i++;
15     }
16     while(rn!=nt || i==1);
17     printf("%d",rn);
18 }
```

	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 %)

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

	<b>Input</b>	<b>Expected</b>	<b>Got</b>	
✓	5	*	*	✓
		* *	* *	
		* * *	* * *	
		* * * *	* * * *	
		* * * * *	* * * * *	
		* * * *	* * * *	
		* * *	* *	
		*	*	

Passed all tests! ✓