

<b>Status</b>	Finished
<b>Started</b>	Sunday, 9 November 2025, 9:12 AM
<b>Completed</b>	Sunday, 9 November 2025, 9:35 AM
<b>Duration</b>	22 mins 25 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,i,nc,nc1,ct=0;
6  int rev=0;
7  scanf("%d",&n);
8  nc=n;
9  while(nc>0)
10 {
11 nc=nc/10;
12 ct++;
13 }
14 nc1=n;
15 while(nc1>0)
16 {
17 i=nc1%10;
18 rev = rev + (int)pow(i,ct);
19 nc1=nc1/10;
20 }
21 if(rev==n)
22 {
23 printf("true");
24 }
25 else
26 {
27 printf("false");
28 }
29 return 0;
30 }
```

	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** $1 \leq \text{num} \leq 999999999$ **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
3 int main()
4 {
5     int n,m;
6     int o=0;
7     int p=0;
8     scanf("%d",&n);
9     do
10    {
11        o=n;
12        m=0;
13        while(n!=0)
14        {
15            m=(m*10)+(n%10);
16            n=n/10;
17        }
18        n=o+m;
19        p++;
20    }
21    while(m!=o || p==1);
22    printf("%d",m);
23    return 0;
24 }
```

25  
26  
27



	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
3 int main()
4 {
5     int i,j,n;
6     scanf("%d",&n);
7     for(i=1;i<=n;i++)
8     {
9         for(j=1;j<=i;j++)
10        {
11            printf("* ");
12        }
13        printf("\n");
14    }
15    for(i=n;i>=2;i--)
16    {
17        for(j=i;j>=2;j--)
18        {
19            printf("* ");
20        }
21        printf("\n");
22    }
23    return 0;
24 }
```



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

Passed all tests! ✓