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State	Finished
Completed on	Monday, 25 August 2025, 9:02 PM
Time taken	3 days 5 hours
Marks	10.00/10.00
Grade	**100.00** out of 100.00

Question 1 | Correct Mark 1.00 out of 1.00

A Number is said to be Disarium number when the sum of its digit raised to the power of their respective positions becomes equal to the number itself. Write a program to print number is Disarium or not.

Input Format:

Single Integer Input from stdin.

Output Format:

Yes or No.

Example Input:

175

Output:

Yes

Explanation

1^1 + 7^2 +5^3 = 175

Example Input:

123

Output:

No

For example:

Input	Result
175	Yes
123	No

Answer: (penalty regime: 0 %)

```
n=int(input())
s=n
d=n
a=0;
while (n!=0):
    n//=10
    a+=1
m=0
while (s!=0):
    x=s%10
    m=x**a+m
    a=a-1
    s=s//10
if (m==d):
    print('Yes')
else:
    print('No')
```

	Input	Expected	Got	
✔	175	Yes	Yes	✔
✔	123	No	No	✔
✔	89	Yes	Yes	✔

	Input	Expected	Got	
✔	90	No	No	✔
✔	518	Yes	Yes	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question 2 | Correct Mark 1.00 out of 1.00

An automorphic number is a number whose square ends with the number itself.

For example, 5 is an automorphic number because 5*5 =25. The last digit is 5 which same as

the given number.

If it is an automorphic number display “Automorphic” else display “Not Automorphic”.

Input Format:

Take a Integer from Keyboard

Output Format:

Print Automorphic if given number is Automorphic number, otherwise Not Automorphic

Example input:

5

Output:

Automorphic

Example input:

25

Output:

Automorphic

Example input:

7

Output:

Not Automorphic

Answer: (penalty regime: 0 %)

```
n=int(input())
m=n**2
v=n
a=0
while (n!=0):
    n//=10
    a+=1
s=m%10**a
if(v==s):
    print('Automorphic')
else:
    print('Not Automorphic')
```

	Input	Expected	Got	
✔	5	Automorphic	Automorphic	✔
✔	625	Automorphic	Automorphic	✔
✔	7	Not Automorphic	Not Automorphic	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question 3 | Correct Mark 1.00 out of 1.00

Write a program that given an integer ‘n’, prints the number of integers that are less than or equal to ‘n’ and co-prime to ‘n’

Two integers a and b are said to be relatively prime or co-prime if the only positive integer that evenly divides both of them is 1. That is, the only common positive factor of the two numbers is 1. This is equivalent to their greatest common divisor being 1.

Input Format:

One line containing the value of 'n', where 1<=n<=10,000

Output Format:

One line containing the number of integers that are co-prime to n and less than or equal to 'n'

Sample Test Cases

Test Case 1

Input

10

Output

4

Test Case 2

Input

23

Output

22

Test Case 3

Input

11

Output

10

Answer: (penalty regime: 0 %)

```
import math
n=int(input())
count=0
for i in range(1,n+1):
    if math.gcd(i,n)==1:
        count+=1
print(count)
```

	Input	Expected	Got	
✔	10	4	4	✔
✔	23	22	22	✔
✔	11	10	10	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question 4 | Correct Mark 1.00 out of 1.00

Write python program to print the following pattern based on input size.

Input:

3

Output:

```
  1
 2 3
4 5 6
```

For example:

Input	Result
4	1 2 3 4 5 6 7 8 9 10

Answer: (penalty regime: 0 %)

```
n=int(input())
k=1
for i in range(1, n+1):
    for _ in range (n-i):
        print(end=' ')
    for j in range(i):
        print(k, end =" ")
        k+=1
    print()
```

	Input	Expected	Got	
✔	3	1 2 3 4 5 6	1 2 3 4 5 6	✔
✔	4	1 2 3 4 5 6 7 8 9 10	1 2 3 4 5 6 7 8 9 10	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question 5 | Correct Mark 1.00 out of 1.00

Write a program to find the count of non-repeated digits in a given number N. The number will be passed to the program as an input of type int.

Assumption: The input number will be a positive integer number >= 1 and <= 25000.

Some examples are as below.

If the given number is 292, the program should return 1 because there is only 1 non-repeated digit '9' in this number

If the given number is 1015, the program should return 2 because there are 2 non-repeated digits in this number, '0', and '5'.

If the given number is 108, the program should return 3 because there are 3 non-repeated digits in this number, '1', '0', and '8'.

If the given number is 22, the function should return 0 because there are NO non-repeated digits in this number.

For example:

Input	Result
292	1
1015	2
108	3
22	0

Answer: (penalty regime: 0 %)

```
n=int(input())
c={}
if n==0:
    c['0']=1
else:
    temp=abs(n)
    while temp>0:
        digit=temp%10
        if digit in c:
            c[digit]+=1
        else:
            c[digit]=1
        temp//=10
non=0
for counts in c.values():
    if counts==1:
        non+=1
print(non)
```

	Input	Expected	Got	
✔	292	1	1	✔
✔	1015	2	2	✔
✔	108	3	3	✔
✔	22	0	0	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question 6 | Correct Mark 1.00 out of 1.00

Let's print a chessboard!

Write a program that takes input:

Integer N(represents the rows and columns of a chessboard) and also the starting character of the chessboard

Output Format

Print the chessboard as per the given examples

Sample Input / Output

Input:

2

W

Output:

WB

BW

Answer: (penalty regime: 0 %)

```
n=int(input())
s=input()
first='W'
second='B'
if(s=='B'):
    first='B'
    second='W'
for i in range (1,n+1):
    for j in range(1,n+1):
        if((i+j)%2==0):
            print(first,end='')
        else:
            print(second,end='')
    print()

```

	Input	Expected	Got	
✔	2 W	WB BW	WB BW	✔
✔	3 B	BWB WBW BWB	BWB WBW BWB	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question 7 | Correct Mark 1.00 out of 1.00

You are choreographing a circus show with various animals. For one act, you are given two kangaroos on a number line ready to jump in the positive direction.

•The first kangaroo starts at position x1 and moves at a speed v1 meters per jump.

•The second kangaroo starts at position x2 and moves at a speed of v2 meters per jump and x2 > x1

•You have to figure out to get both kangaroos at the same position at the same time as part of the show before k jumps. If it is possible, return YES, otherwise return NO.

Input Format:

x1-position of kangaroo1

v1-Speed of kangaroo1

x2-position of kangaroo2

v2-Speed of kangaroo2

k-jumps

Output Format:

Both kangaroos are at the same position within k jumps, YES, otherwise NO.

For example:

Input	Result
0 3 4 2 6	YES

Answer: (penalty regime: 0 %)

```
x1=int(input())
v1=int(input())
x2=int(input())
v2=int(input())
k=int(input())
for _ in range(k):
    x1+=v1
    x2+=v2
    if(x1==x2):
        print("YES");break
else:
    print("NO")
```

	Input	Expected	Got	
✔	0 3 4 2 6	YES	YES	✔
✔	0 3 2 4 8	NO	NO	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question 8 | Correct Mark 1.00 out of 1.00

Given a positive integer a, find the smallest positive integer b whose multiplication of each digit equals to a.

If there is no answer or the answer is not fit in 32-bit signed integer, then return 0.

Example 1

Input:

48

Output:

68

Example 2

Input:

15

Output:

35

For example:

Input	Result
48	68
15	35

Answer: (penalty regime: 0 %)

```
n=int(input())
flag=False
for i in range(1,10):
    for j in range(1,10):
        if(i*j==n):
            print(i,j,sep='')
            flag=True
    if flag:
        break
```

	Input	Expected	Got	
✔	48	68	68	✔
✔	15	35	35	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question 9 | Correct Mark 1.00 out of 1.00

Given a number N, find the next perfect square greater than N.

Input Format:

Integer input from stdin.

Output Format:

Perfect square greater than N.

Example Input:

10

Output:

16

For example:

Input	Result
10	16
20	25

Answer: (penalty regime: 0 %)

```
n=int(input())
a=1
while True:
    j=a**2
    if(n<j):
        break
    a+=1
print(j)
```

	Input	Expected	Got	
✔	10	16	16	✔
✔	20	25	25	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Question 10 | Correct Mark 1.00 out of 1.00

Write a program to find the count of the number of prime numbers in a specified range.

The starting and ending number of the range will be provided as input to the program.

Assumption: 2 <=starting number of the range<= ending number of the range<=7919

Example1: If the starting and ending number or the range is given as 2 and 20, the program must return 8, because there are 8 prime numbers in the specified range from 2 to 20. namely (2. 3. 5, 7, 11, 13, 17, 19)

Example2: If the starting and ending number of the range is given as 700 and 725, the program must return 3, because there are 3 prime numbers in the specified range from 700 to 725, namely (701, 709, 719)

For example:

Input	Result
2 20	8
700 725	3

Answer: (penalty regime: 0 %)

```
n=int(input())
m=int(input())
c=0
for i in range(n,m+1):
    for j in range(2,i):
        if(i%j==0):
            break
    else:
         c+=1
print(c)
```

	Input	Expected	Got	
✔	2 20	8	8	✔
✔	700 725	3	3	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.