

6/19/24, 7:13 PM	Time taken	15 days 10 hours	Week4_Coding: Attempt review REC-PS
	Overdue	13 days 10 hours	
	Marks	10.00/10.00	
	Grade	100.00 out of 100.00	

0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, . . . and so on.

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Week 4 Coding Attempt review | REC-PS

1.e. Fibonacci series starts with 0 and 1, and continues generating the next number as the sum of the previous two numbers.

- first Fibonacci number is 0,
- second Fibonacci number is 1,
- third Fibonacci number is 1,
- fourth Fibonacci number is 2,
- fifth Fibonacci number is 3,
- sixth Fibonacci number is 5,
- seventh Fibonacci number is 8, and so on.

For example:

Input	Result
1	0
4	2
7	8

Answer: (penalty regime: 0 %)

```
1 def fibonacci(n):
2     if n<=0:
3         return "Invalid input. Please enter a positive integer."
4     elif n==1:
5         return 0
6     elif n==2:
7         return 1
8     else:
9         a,b = 0,1
10        for i in range (2,n):
11            a,b = b , a+b
12        return b
13
14 n=int(input())
15 print(fibonacci(n))
16
```

	Input	Expected	Got	
✓	1	0	0	✓

Output Format:

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Yes or No

Week4_Coding: Attempt review | REC-PS

Example Input:

24

Output:

Yes

Example Input:

26

Output:

No

For example:

Input	Result
24	Yes

Answer: (penalty regime: 0 %)

```
1 a=int(input())
2 b=(a+1)
3 c=int(b**0.5)
4 if c**2==b:
5     print("Yes")
6 else:
7     print("No")
```

	Input	Expected	Got	
✓	24	Yes	Yes	✓
✓	26	No	No	✓

Passed all tests! ✓

Write a program that finds whether the given number N is Prime or not.
If the number is prime, the program should return 2 else it must return 1.

Assumption: $2 \leq N \leq 5000$, where N is the given number.
Example1: if the given number N is 7, the method must return 2
Example2: if the given number N is 10, the method must return 1

For example:

Input	Result
7	2
10	1

Answer: (penalty regime: 0 %)

```
1 a=int(input())
2 if a//1==a and a//a==1 and a%2!=0:
3     print("2")
4 else:
5     print("1")
```

	Input	Expected	Got	
✓	7	2	2	✓
✓	10	1	1	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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 %)

```
1 a=input()
2 len_a=len(a)
3 a=int(a)
4 copy_a=int(a)
5 result=0
6 i=int(len_a)
7 while a!=0 :
8     b=a%10
9     result=result +pow(b,i)
10    a=int(a/10)
11    i=i-1
12 if result==copy_a:
13     print("Yes")
14 else:
15     print("No")
```


$$4! = 4 \times 3 \times 2 \times 1 = 24$$

$$9! = 9 \times 8 \times 7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 = 362880$$

Write a program to find the factorial of a given number.

The given number will be passed to the program as an input of type int.

The program is expected to calculate the factorial of the given number and return it as an int type.

Assumptions for this program:

The given input number will always be greater than or equal to 1.

Due to the range supported by int. the input numbers will range from 1 to 12.

For example:

Input	Result
5	120
4	24
9	362880

Answer: (penalty regime: 0 %)

```

1 a=int(input())
2 b=1
3 if 1<=a<=12 :
4     while a>1:
5         b=b*a
6         a=a-1
7 print(b)

```

	Input	Expected	Got	
✓	5	120	120	✓
✓	4	24	24	✓

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If the given number is 292, the program should return 2 because there are only 2 unique digits '2' and '9' in this number
If the given number is 1015, the program should return 3 because there are 3 unique digits in this number, '1', '0', and '5'.

For example:

Input	Result
292	2
1015	3

Answer: (penalty regime: 0 %)

```
1 x=int(input())
2 if(x<1 and x>25000):
3     print('Invalid')
4 else:
5     uniq_dig = set()
6     y=str(x)
7     for dig in y:
8         uniq_dig.add(dig)
9     print(len(uniq_dig))
```

	Input	Expected	Got	
✓	292	2	2	✓
✓	1015	3	3	✓
✓	123	3	3	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Perfect Square greater than N.

Example Input:

10

Output:

16

Answer: (penalty regime: 0 %)

```
1 import math
2 def squarenum(n):
3     root = math.ceil(math.sqrt(n))
4     return root**2
5
6 x=int(input())
7 print(squarenum(x))
8
```

	Input	Expected	Got	
✓	10	16	16	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Some examples are as below

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If the given number is 292, the program should return 1 because there is only 1 non-repeated digit '8' 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 %)

```
1 x=int(input())
2 if (x>=1 and x<=25000):
3     y=str(x)
4     uniq_dict={}
5     for dig in y:
6         if dig in uniq_dict:
7             uniq_dict[dig] +=1
8         else:
9             uniq_dict[dig] =1
10    non_rep=0
11    for count in uniq_dict.values():
12        if count==1:
13            non_rep +=1
14    print(non_rep)
15 else:
16    print("invalid")
```

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

4

Output

1234

Test Case 2

Input

6

Output

123456

Answer: (penalty regime: 0 %)

```
1 x=int(input())
2 s=0
3 j=1
4 for i in range(1,x+1):
5     s=s+j
6     j=(j*10)+1
7 print(s)
```

	Input	Expected	Got	
✓	4	1234	1234	✓
✓	6	123456	123456	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Output Format:
Output displays Yes if condition satisfies else prints No.
Example Input:
14
Output:
Yes
Example Input:
13
Output:
No

Answer: (penalty regime: 0 %)

```
1 a=int(input())
2 b=False
3 for i in range(2,10):
4     if a%i==0 and a//i<10:
5         b=True
6
7 if b:
8     print("Yes")
9 else:
10    print("No")
```

	Input	Expected	Got	
✓	14	Yes	Yes	✓
✓	13	No	No	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

