GE19211 / GE23233 / GE23231 - PSPP/PUP

Quiz navigation

1 ✓ 2 ✓ 3 ✓ 4 ✓ 5 ✓ 6 ✓
7 ✓ 8 ✓ 9 ✓ 10 ✓

Show one page at a time

Finish review

Started on	Friday, 12 April 2024, 7:23 PM
State	Finished
Completed on	Friday, 12 April 2024, 7:37 PM
Time taken	14 mins 13 secs
Marks	19.00/19.00
Grade	**100.00** out of 100.00

Question **1**
Correct
Mark 1.00 out of 1.00
Flag question

In the 1800s, the battle of Troy was led by Hercules. He was a superstitious person. He believed that his crew can win the battle only if the total count of the weapons in hand is in multiple of 3 and the soldiers are in an even number of count. Given the total number of weapons and the soldier's count, Find whether the battle can be won or not according to Hercules's belief. If the battle can be won print True otherwise print False.

Input format:

Line 1 has the total number of weapons

Line 2 has the total number of Soldiers.

Output Format:

If the battle can be won print True otherwise print False.

Sample Input:

32

43

Sample Output:

False

For example:

Input	Result
32 43	False

Answer: (penalty regime: 0 %)

```
a=int(input(""))
if (a%3==0):
  print(True)
else:

  print(False)
```

	Input	Expected	Got	
✓	32 43	False	False	✓
✓	273 7090	True	True	✓
✓	880 4590	False	False	✓
✓	6789 32996	True	True	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **2**
Correct
Mark 1.00 out of 1.00
Flag question

In London, every year during Dasara there will be a very grand doll show. People try to invent new dolls of different varieties. The best sold doll's creator will be awarded with a cash prize. So people broke their heads to create dolls innovatively. Knowing this competition, Mr.Lokpaul tried to create a doll that sings only when an even number is pressed and the number should not be zero and greater than 100.

IF Lokpaul wins print true, otherwise false.

Sample Input

10

Sample Output

True

Explanation:

Since 10 is an even number and a number between 0 and 100, True is printed

For example:

Input	Result
100	False

Answer: (penalty regime: 0 %)

```
a=int(input())
if 0<a<100:
    print(True)
else:
    print(False)
```

	Input	Expected	Got	
✓	56	True	True	✓
✓	100	False	False	✓
✓	-2	False	False	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **3**
Correct
Mark 1.00 out of 1.00
Flag question

Write a python program that takes a integer between 0 and 15 as input and displays the number of '1' s in its binary form.(Hint:use python bitwise operator.

Sample Input:

3

Sample Output:

2

Explanation:

The binary representation of 3 is 011, hence there are 2 ones in it. so the output is 2.

For example:

Input	Result
3	2

Answer: (penalty regime: 0 %)

```
a=int(input(""))
b= bin(a)
c = [ones for ones in b[2:] if ones == '1']
print(len (c))
```

	Input	Expected	Got	
✓	3	2	2	✓
✓	5	2	2	✓
✓	15	4	4	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **4**
Correct
Mark 1.00 out of 1.00
Flag question

Mr.Ram has been given a problem kindly help him to solve it. The input of the program is either 0 or 1. IF 0 is the input he should display "C" if 1 is the input it should display "D". There is a constraint that Mr. Ram should use either logical operators or arithmetic operators to solve the problem, not anything else.

Hint:

Use ASCII values of C and D.

Input Format:

An integer x, 0<=x<=1 .

Output Format:

output a single character "C" or "D"depending on the value of x.

Input 1:
0
Output 1:
C

Input 2:
1

Output 1:
D

For example:

Input	Result
0	C

Answer: (penalty regime: 0 %)

```
a=int(input(""))
if(a==1):
   print("D")
else:
   print("C")
```

	Input	Expected	Got	
✓	0	C	C	✓
✓	1	D	D	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **5**
Correct
Mark 1.00 out of 1.00
Flag question

The program that you create for this exercise will begin by reading the cost of a meal ordered at a restaurant from the user. Then your program will compute the tax and tip for the meal. Use your local tax rate (5 percent) when computing the amount of tax owing. Compute the tip as 18 percent of the meal amount (without the tax). The output from your program should include the tax amount, the tip amount, and the grand total for the meal including both the tax and the tip. Format the output so that all of the values are displayed using two decimal places.

Sample Input

100

Sample Output

The tax is 5.00 and the tip is 18.00, making the total 123.00

For example:

Input	Result
100	The tax is 5.00 and the tip is 18.00, making the t

Answer: (penalty regime: 0 %)

```
A = int(input())
B = A * 0.05
C = A * 0.18
print(f'The tax is {B:.2f} and the tip is {C:.2
```

	Input	Expected
✓	100	The tax is 5.00 and the tip is 18.00, makin
✓	250	The tax is 12.50 and the tip is 45.00, maki

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **6**
Correct
Mark 10.00 out of 10.00
Flag question

An online retailer sells two products: widgets and gizmos. Each widget weighs 75 grams. Each gizmo weighs 112 grams. Write a program that reads the number of widgets and the number of gizmos from the user. Then your program should compute and display the total weight of the parts.

Sample Input:

10

20

Sample Output:

The total weight of all these widgets and gizmos is 2990 grams.

Answer: (penalty regime: 0 %)

```
a=int(input(""))
b=int(input(""))
c=a*75
d=b*112
g=c+d
print("The total weight of all these widgets an
```

	Input	Expected
✓	10 20	The total weight of all these widgets and g

Passed all tests! ✓

Correct

Marks for this submission: 10.00/10.00.

Question **7**
Correct
Mark 1.00 out of 1.00
Flag question

Mr. X's birthday is in next month. This time he is planning to invite N of his friends. He wants to distribute some chocolates to all of his friends after the party. He went to a shop to buy a packet of chocolates. At the chocolate shop, 4 packets are there with different numbers of chocolates. He wants to buy such a packet which contains a number of chocolates, which can be distributed equally among all of his friends. Help Mr. X to buy such a packet.

Input Given:

N-No of friends

P1,P2,P3 AND P4-No of chocolates

OUTPUT:

"True" if he can buy that packet and "False" if he can't buy that packet.

SAMPLE INPUT AND OUTPUT:

5

25

12

10

9

OUTPUT

True False True False

For example:

Input	Result
5 25 23 28 18	True False True True

Answer: (penalty regime: 0 %)

```
n=int(input())

i = 0
while i < 4:
    a = int(input())
    if(a % n == 0):
        print(True, end = ' ')
    else:
        print(False, end = ' ')
    i = i + 1
```

	Input	Expected	Got
✓	5 25 23 28 18	True False True True	True False True True
✓	4 23 24 21 12	False True False True	False True False Tru
✓	8 64 8 16 32	True True True True	True True True True

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **8**
Correct
Mark 1.00 out of 1.00
Flag question

Pretend that you have just opened a new savings account that earns 4 percent interest per year. The interest that you earn is paid at the end of the year, and is added to the balance of the savings account. Write a program that begins by reading the amount of money deposited into the account from the user. Then your program should compute and display the amount in the savings account after 1, 2, and 3 years. Display each amount so that it is rounded to 2 decimal places. Sample Input: 10000 Sample Output: Balance as of end of Year 1: $10400.00. Balance as of end of Year 2: $10816.00. Balance as of end of Year 3: $11248.64.

For example:

Input	Result
10000	Balance as of end of Year 1: $10400.00. Balance as of end of Year 2: $10816.00. Balance as of end of Year 3: $11248.64.

Answer: (penalty regime: 0 %)

```
A = int(input())

i = 1
while i < 4:
    B = A * 0.04
    A = A + B
    print(f'Balance as of end of Year {i}: ${A:
    i = i + 1
```

	Input	Expected	Go
✓	10000	Balance as of end of Year 1: $10400.00. Balance as of end of Year 2: $10816.00. Balance as of end of Year 3: $11248.64.	Ba Ba Ba
✓	20000	Balance as of end of Year 1: $20800.00. Balance as of end of Year 2: $21632.00. Balance as of end of Year 3: $22497.28.	Ba Ba Ba

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **9**
Correct
Mark 1.00 out of 1.00
Flag question

Write a program that returns the last digit of the given number. Last digit is being referred to the least significant digit i.e. the digit in the ones (units) place in the given number.

The last digit should be returned as a positive number.

For example,

if the given number is 197, the last digit is 7

if the given number is -197, the last digit is 7

For example:

Input	Result
197	7
-197	7

Answer: (penalty regime: 0 %)

```
a=str(input(""))
b=int(a[len(a)-1])
print(b)
```

	Input	Expected	Got	
✓	197	7	7	✓
✓	-197	7	7	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **10**
Correct
Mark 1.00 out of 1.00
Flag question

Note:

Dont use if-else. Operators alone must be used .

A team from the Rotract club had planned to conduct a rally to create awareness among the Coimbatore people to donate blood. They conducted the rally successfully. Many of the Coimbatore people realized it and came forward to donate their blood to nearby blood banks. The eligibility criteria for donating blood are people should be above or equal to 18 and his/ her weight should be above 40. There was a huge crowd and staff in the blood bank found it difficult to manage the crowd. So they decided to keep a system and ask the people to enter their age and weight in the system. If a person is eligible he/she will be allowed inside.

Write a program and feed it to the system to find whether a person is eligible or not.

Input Format:

Input consists of two integers that correspond to the age and weight of a person respectively.

Output Format:

Display True(IF ELIGIBLE)

Display False (if not eligible)

Sample Input

19

45

Sample Output

True

For example:

Input	Result
18 40	False

Answer: (penalty regime: 0 %)

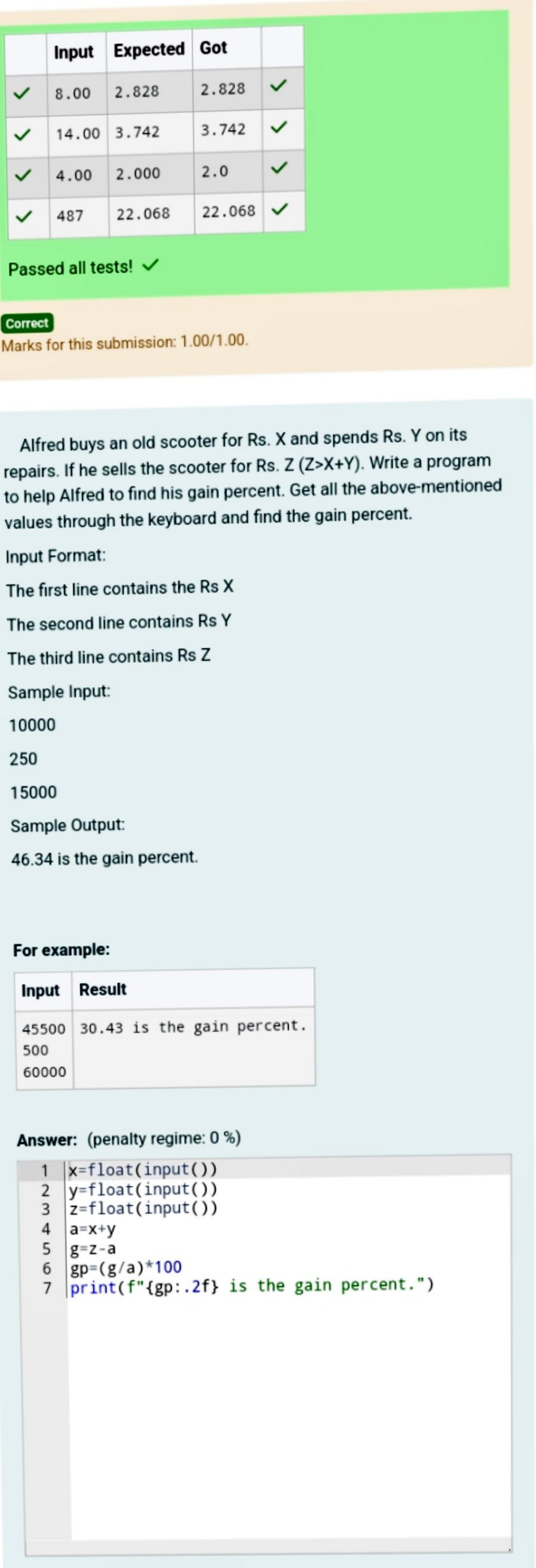
```
a=int(input(""))
b=int(input(""))
if(a>=18):
    if b>40:
      print(True)
    else:
        print(False)
else:
    print(False)
```

	Input	Expected	Got	
✓	19 45	True	True	✓
✓	18 40	False	False	✓
✓	18 42	True	True	✓
✓	16 45	False	False	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.



	Input	Expected	Got	
✓	8.00	2.828	2.828	✓
✓	14.00	3.742	3.742	✓
✓	4.00	2.000	2.0	✓
✓	487	22.068	22.068	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Alfred buys an old scooter for Rs. X and spends Rs. Y on its repairs. If he sells the scooter for Rs. Z (Z>X+Y). Write a program to help Alfred to find his gain percent. Get all the above-mentioned values through the keyboard and find the gain percent.

Input Format:

The first line contains the Rs X

The second line contains Rs Y

The third line contains Rs Z

Sample Input:

10000

250

15000

Sample Output:

46.34 is the gain percent.

For example:

Input	Result
45500 500 60000	30.43 is the gain percent.

Answer: (penalty regime: 0 %)

```
x=float(input())
y=float(input())
z=float(input())
a=x+y
g=z-a
gp=(g/a)*100
print(f"{gp:.2f} is the gain percent.")
```

	Input	Expected	Got	
✓	7 15 7 10 8 9 4 6	15 10 9 6	15 10 9 6	✓
✓	4 12 3 6 8	12 8	12 8	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

Flag question

To find the frequency of numbers in a list and display in sorted order.

Constraints:

1<=n, arr[i]<=100

Input:

1 68 79 4 90 68 1 4 5

output:

1 2

4 2

5 1

68 2

79 1

90 1

For example:

Input	Result
4 3 5 3 4 5	3 2 4 2 5 2

Answer: (penalty regime: 0 %)

```
A = list(map(int, input().split()))
for B in sorted(set(A)):
    print(B, A.count(B))
```

Question **1**

Correct

Mark 1.00 out of 1.00

Flag question

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 the number is not valid, it should display "Invalid input".

If it is an automorphic number display "Automorphic" else display "Not Automorphic".

Input Format:

Take a Integer from Stdin 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

For example:

Test	Result
`print(automorphic(5))`	`Automorphic`

Answer: (penalty regime: 0 %)

Reset answer

```
def automorphic(n):
 A = n * n
 return "Automorphic" if str(A).endswith(str(n)
```

	Test	Expected	Got
✓	`print(automorphic(5))`	`Automorphic`	`Automorphi`
✓	`print(automorphic(7))`	`Not Automorphic`	`Not Automo`

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Flag question

An abundant number is a number for which the sum of its proper divisors is greater than

the number itself. Proper divisors of the number are those that are strictly lesser than the number.

Input Format:

Take input an integer from stdin

Output Format:

Return Yes if given number is Abundant. Otherwise, print No

Example input:

12

Output:

Yes

Explanation

The proper divisors of 12 are: 1, 2, 3, 4, 6, whose sum is 1 + 2 + 3 + 4 + 6 = 16. Since sum of

proper divisors is greater than the given number, 12 is an abundant number.

Example input:

13

Output:

No

Explanation

The proper divisors of 13 is: 1, whose sum is 1. Since sum of proper divisors is not greater

than the given number, 13 is not an abundant number.

For example:

Test	Result
`print(abundant(12))`	`Yes`
`print(abundant(13))`	`No`

Answer: (penalty regime: 0 %)

Reset answer

```
def abundant(n):
    A = sum(i for i in range(1, n) if n % i ==
    return "Yes" if A > n else "No"
```

	Test	Expected	Got	
✓	`print(abundant(12))`	`Yes`	`Yes`	✓
✓	`print(abundant(13))`	`No`	`No`	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

Flag question

complete function to implement coin change making problem i.e. finding the minimum

number of coins of certain denominations that add up to given amount of money.

The only available coins are of values 1, 2, 3, 4

Input Format:

Integer input from stdin.

Output Format:

return the minimum number of coins required to meet the given target.

Example Input:

16

Output:

4

Explanation:

We need only 4 coins of value 4 each

Example Input:

25

Output:

7

Explanation:

We need 6 coins of 4 value, and 1 coin of 1 value

Answer: (penalty regime: 0 %)

Reset answer

```
def coinChange(n):
    coins = [1, 2, 3, 4]
    dp = [0] + [float('inf')] * n
    for amount in range(1, n + 1):
        dp[amount] = min(dp[amount - coin] + 1
    return dp[n]



```

	Test	Expected	Got	
✓	`print(coinChange(16))`	`4`	`4`	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Flag question

Write a code to check whether product of digits at even places is divisible by sum of digits

at odd place of a positive integer.

Input Format:

Take an input integer from stdin.

Output Format:

Print TRUE or FALSE.

Example Input:

1256

Output:

TRUE

Example Input:

1595

Output:

FALSE

For example:

Test	Result
`print(productDigits(1256))`	`True`
`print(productDigits(1595))`	`False`

Answer: (penalty regime: 0 %)

Reset answer

```
def productDigits(number):
    num_str = str(number)
    product_even = 1
    sum_odd = 0
    for i in range(len(num_str)):
        digit = int(num_str[i])
        if (i + 1) % 2 == 0:
            product_even *= digit
        else:
            sum_odd += digit
    if sum_odd == 0:
        return False
    return product_even % sum_odd == 0

if __name__ == "__main__":
    try:
        number = int(input())
        if productDigits(number):
            print("TRUE")
        else:
            print("FALSE")
    except EOFError:
        pass
    except ValueError:
        print("ValueError: Invalid input. Plea


```

	Test	Expected	Got	
✓	`print(productDigits(1256))`	`True`	`True`	✓
✓	`print(productDigits(1595))`	`False`	`False`	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Flag question

A number is considered to be ugly if its only prime factors are 2, 3 or 5.

[1, 2, 3, 4, 5, 6, 8, 9, 10, 12, 15, ...] is the sequence of ugly numbers.

Task:

complete the function which takes a number n as input and checks if it's an ugly number.

return ugly if it is ugly, else return not ugly

Hint:

An ugly number U can be expressed as: U = 2^a * 3^b * 5^c, where a, b and c are nonnegative integers.

For example:

Test	Result
`print(checkUgly(6))`	`ugly`
`print(checkUgly(21))`	`not ugly`

Answer: (penalty regime: 0 %)

Reset answer

```
def checkUgly(n):
    if n <= 0:
        return "not ugly"
    while n % 2 == 0:
        n //= 2
    while n % 3 == 0:
        n //= 3
    while n % 5 == 0:
        n //= 5
    return "ugly" if n == 1 else "not ugly"
```

	Test	Expected	Got	
✓	`print(checkUgly(6))`	`ugly`	`ugly`	✓
✓	`print(checkUgly(21))`	`not ugly`	`not ugly`	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

GE19211 / GE23233 / GE23231 - PSPP/PUP

Dashboard / My courses / PSPP/PUP / Experiments based on Tuples, Sets and its operations / Week7_Coding

Quiz navigation

1 ✓ 2 ✓ 3 ✓ 4 ✓ 5 ✓

Show one page at a time

Finish review

Started on	Tuesday, 21 May 2024, 1:42 PM
State	Finished
Completed on	Wednesday, 22 May 2024, 2:04 PM
Time taken	1 day
Marks	5.00/5.00
Grade	**100.00** out of 100.00

Question **1**
Correct
Mark 1.00 out of 1.00
Flag question

Given an array of integers `nums` containing `n + 1` integers where each integer is in the range `[1, n]` inclusive.There is only **one repeated number** in `nums`, return *this repeated number*. Solve the problem using set.

Example 1:

Input: `nums = [1,3,4,2,2]`

Output: `2`

Example 2:

Input: `nums = [3,1,3,4,2]`

Output: `3`

For example:

Input	Result
1 3 4 4 2	4

Answer: (penalty regime: 0 %)

```
def find_duplicate(nums):
    seen = set()
    for num in nums:
        if num in seen:
            return num
        seen.add(num)
nums = list(map(int, input().split()))
print(find_duplicate(nums))


```

	Input	Expected	Got	
✓	1 3 4 4 2	4	4	✓
✓	1 2 2 3 4 5 6 7	2	2	✓

Passed all tests! ✓

Correct
Marks for this submission: 1.00/1.00.

Question **2**
Correct
Mark 1.00 out of 1.00
Flag question

Coders here is a simple task for you, Given string str. Your task is to check whether it is a binary string or not by using python set.

Examples:

Input: str = "01010101010"

Output: Yes

Input: str = "REC101"

Output: No

For example:

Input	Result
01010101010	Yes
010101 10101	No

Answer: (penalty regime: 0 %)

```
def is_binary_string(s):
    binary_set = {'0', '1'}
    return set(s).issubset(binary_set)

def main():
    s = input().strip()
    if is_binary_string(s):
        print("Yes")
    else:
        print("No")

if __name__ == "__main__":
    main()
```

	Input	Expected	Got	
✓	01010101010	Yes	Yes	✓
✓	REC123	No	No	✓
✓	010101 10101	No	No	✓

Passed all tests! ✓

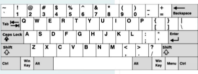
Correct
Marks for this submission: 1.00/1.00.

Question **3**
Correct
Mark 1.00 out of 1.00
Flag question

Given an array of strings `words`, return *the words that can be typed using letters of the alphabet on only one row of American keyboard like the image below*.

In the **American keyboard**:

- the first row consists of the characters `"qwertyuiop"`,
- the second row consists of the characters `"asdfghjkl"`, and
- the third row consists of the characters `"zxcvbnm"`.



Example 1:

```
Input: words = ["Hello","Alaska","Dad","Peace"]
Output: ["Alaska","Dad"]
```

Example 2:

```
Input: words = ["omk"]
Output: []
```

Example 3:

```
Input: words = ["adsdf","sfd"]
Output: ["adsdf","sfd"]
```

For example:

Input	Result
4 Hello Alaska Dad Peace	Alaska Dad
2 adsfd afd	adsfd afd

Answer: (penalty regime: 0 %)

```
A = int(input())
words = [input() for _ in range(A)]
rows = [set("qwertyuiop"), set("asdfghjkl"), se
result = [word for word in words if any(set(wor
if result:
    print("\n".join(result))
else:
    print("No words")

```

	Input	Expected	Got	
✓	4 Hello Alaska Dad Peace	Alaska Dad	Alaska Dad	✓
✓	1 omk	No words	No words	✓
✓	2 adsfd afd	adsfd afd	adsfd afd	✓

Passed all tests! ✓

Correct
Marks for this submission: 1.00/1.00.

Question **4**
Correct
Mark 1.00 out of 1.00
Flag question

Write a program to eliminate the common elements in the given 2 arrays and print only the non-repeating

elements and the total number of such non-repeating elements.

Input Format:

The first line contains space-separated values, denoting the size of the two arrays in integer format respectively.

The next two lines contain the space-separated integer arrays to be compared.

Sample Input:

5 4

1 2 8 6 5

2 6 8 10

Sample Output:

1 5 10

3

Sample Input:

5 5

1 2 3 4 5

1 2 3 4 5

Sample Output:

NO SUCH ELEMENTS

For example:

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

Answer: (penalty regime: 0 %)

```
n, m = map(int, input().split())
array1 = list(map(int, input().split()))
array2 = list(map(int, input().split()))
set1 = set(array1)
set2 = set(array2)
symmetric_diff = set1.symmetric_difference(set
non_repeating_elements = [x for x in symmetric
if non_repeating_elements:
    print(*non_repeating_elements)
    print(len(non_repeating_elements))
else:
    print("NO SUCH ELEMENTS")
```

	Input	Expected	Got	
✓	5 4 1 2 8 6 5 2 6 8 10	1 5 10 3	1 5 10 3	✓
✓	3 3 10 10 10 10 11 12	11 12 2	11 12 2	✓

Passed all tests! ✓

Correct
Marks for this submission: 1.00/1.00.

Question **5**
Correct
Mark 1.00 out of 1.00
Flag question

There is a malfunctioning keyboard where some letter keys do not work. All other keys on the keyboard work properly.

Given a string text of words separated by a single space (no leading or trailing spaces) and a string brokenLetters of all distinct letter keys that are broken, return the number of words in text you can fully type using this keyboard.

Example 1:

Input: text = "hello world", brokenLetters = "ad"

Output:

1

Explanation: We cannot type "world" because the 'd' key is broken.

For example:

Input	Result
hello world ad	1
Faculty Upskilling in Python Programming ak	2

Answer: (penalty regime: 0 %)

```
a=input()
b=input()
c=[]
for char in a:
    if char in b and char not in c:
        c.append(char)
results="".join(c)
res=len(c)
print(res)
```

	Input	Expecte
✓	hello world ad	1
✓	Welcome to REC e	1
✓	Faculty Upskilling in Python Programming ak	2

Passed all tests! ✓

Correct
Marks for this submission: 1.00/1.00.

Finish review

GE19211 / GE23233 / GE23231 - PSPP/PUP

Quiz navigation

1 2 3 4 5 6 7 8 9 10

Show one page at a time

Finish review

Started on	[illegible]
State	Finished
Completed on	[illegible]
Time taken	[illegible]
Overdue	[illegible]
Marks	10.00/10.00
Grade	100.00 out of 100.00

Question [illegible]
Correct
Mark 1.00 out of 1.00
Flag question

Complete the program to count frequency of each element of an array. Frequency of a particular element will be printed once.

Sample Test Cases

Test Case 1

Input

```
7
23
45
23
56
45
23
40
```

Output

```
23 occurs 3 times
45 occurs 2 times
56 occurs 1 times
40 occurs 1 times
```

Answer: (penalty regime: 0 %)

```
def count_frequency(arr):
    freq_counter = {}

    # Count the frequency of each element
    for num in arr:
        if num in freq_counter:
            freq_counter[num] += 1
        else:
            freq_counter[num] = 1

    # Print the frequency of each element
    for num, freq in freq_counter.items():
        print(f"{num} occurs {freq} times")

# Test Case
if __name__ == "__main__":
    n = int(input())  # Number of elements in the array
    arr = [int(input()) for _ in range(n)]

    # Count frequency of each element
    count_frequency(arr)
```

	Input	Expected	Got	
✓	[illegible]	[illegible]	[illegible]	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 2
Correct
Mark 1.00 out of 1.00
Flag question

Output is a merged array without duplicates.

Input Format

N1 - no of elements in array 1

Array elements for array 1

N2 - no of elements in array 2

Array elements for array2

Output Format

Display the merged array

Sample Input 1

5

1

2

3

4

5

4

[illegible]

[illegible]

9

10

Sample Output 1

1 2 3 4 5 6 9 10

Answer: (penalty regime: 0 %)

```
N1 = int(input())
array1 = [int(input()) for _ in range(N1)]
N2 = int(input())
array2 = [int(input()) for _ in range(N2)]
merged_array = list(set(array1 + array2))
merged_array.sort()
print(*merged_array)
```

	Input	Expected	Got
✓	[illegible]	[illegible]	[illegible]
✓	[illegible]	[illegible]	[illegible]

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 3

Correct

Mark 1.00 out of 1.00

Flag question

[illegible]

Sample Test Cases

Test Case 1

Input

```
1
2
3
4
5
6
7
8
9
10
11
2
```

Output

```
[illegible] has been inserted
after insertion array is
1
2
3
4
5
6
7
8
9
10
11
```

Test Case 2

Input

```
11
22
33
44
55
66
77
88
99
110
120
40
```

Output

```
[illegible] has been inserted
after insertion array is
11
22
33
40
44
55
66
77
88
99
110
120
```

Passed all tests! ✓

Correct

Question 8
Correct
Mark 1.00 out of 1.00
Flag question

Write a program to print all the locations at which a particular element (taken as input) is found in a list and also print the total number of times it occurs in the list. The location starts from 1.

For example, if there are 4 elements in the array:

5
6
5
7

If the element to search is 5 then the output will be:

5 is present at location 1
5 is present at location 3
5 is present 2 times in the array.

Sample Test Cases

Test Case 1

Input

[illegible]

Output

[illegible] is present at location [illegible].
[illegible] is present at location [illegible].
[illegible] is present [illegible] times in the array.

Test Case 2

Input

[illegible]

Output

[illegible] is not present in the array.

Answer: (penalty regime: 0 %)

```
def find_element_locations(arr, target):
    locations = []  # List to store locations
    count = 0  # Variable to store the count o

    for i, num in enumerate(arr, start=1):  #
        if num == target:
            locations.append(i)  # Append the
            count += 1  # Increment the count
```

```
if __name__ == "__main__":
[illegible]
```

	Input	Expected	Got
✓	[illegible]	[illegible]	[illegible]
✓	[illegible]	[illegible]	[illegible]

Passed all tests! ✓

Correct

Question 5

Write a Python program to [illegible]

Input:

n - number

[illegible]

[illegible]

Sample Input

2

Answer: (penalty regime: 0 %)

```
def [illegible]:
    return [illegible]

def main():
    n = [illegible]
    n = [illegible]

    [illegible]

    [illegible]

    [illegible]

    print([illegible])

if __name__ == "__main__":
    main()
```

	Input	Expected	Got
✓	[illegible]	[illegible]	[illegible]

Passed all tests! ✓

Correct

Marks for this submission: [illegible]

Question **6**
Correct
Mark 1.00 out of 1.00
Flag question

Given an array A of sorted integers and another non negative integer k, find if there exists 2 indices i and j such that A[i] - A[j] = k, i != j.

Input Format

1. [illegible]
2. N, followed by N integers of the array
3. The non-negative integer k

Output format

Print 1 if such a pair exists and 0 if it doesn't.

Example

Input

1

3

1

3

5

4

Output:

1

Input

1

3

1

3

5

99

Output:

0

For example:

Input	Result
1 3 1 3 5 4	1
1 3 1 3 5 99	0

Answer: (penalty regime: 0 %)

```
def [illegible]
    [illegible]
    for [illegible]
        [illegible]
            [illegible]
        [illegible]
    return 0
[illegible]
for [illegible]
    [illegible]
    [illegible]
    for _ in range([illegible]
        [illegible]
    [illegible]
    [illegible]
    print([illegible]
```

	Input	Expected	Got	
✓	[illegible]	1	1	✓
✓	[illegible]	0	0	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Flag question

Determine the factors of a number (i.e., all positive integer values that evenly divide into a number) and then return the p^{th} element of the list, sorted ascending. If there is no p^{th} element, return 0.

Example

n = 20

p = 3

The factors of 20 in ascending order are {1, 2, 4, 5, 10, 20}. Using 1-based indexing, if p = 3, then 4 is returned. If p > 6, 0 would be returned.

Constraints

$1 \le n \le 10^{15}$

$1 \le p \le 10^{9}$

The first line contains an integer n, the number to factor.

The second line contains an integer p, denoting the 1-based index of the factor to return.

Sample Case 0

Sample Input 0

10

3

Sample Output 0

5

Explanation 0

Factoring n = 10 results in {1, 2, 5, 10}. Return the p = 3rd factor, 5, as the answer.

Sample Case 1

Sample Input 1

10

5

Sample Output 1

0

Explanation 1

Factoring n = 10 results in {1, 2, 5, 10}. There are only 4 factors and p = 5, therefore 0 is returned as the answer.

Sample Case 2

Sample Input 2

1

1

Sample Output 2

1

Explanation 2

Factoring n = 1 results in {1}. The p = 1st factor of 1 is returned as the answer.

For example:

Input	Result
10 3	5
10 5	0
1 1	1

	Input	Expected	Got	
✓	[illegible]	[illegible]	[illegible]	✓
✓	[illegible]	[illegible]	[illegible]	✓
✓	[illegible]	[illegible]	[illegible]	✓

Passed all tests! ✓

Correct

Constraints

- $1 \le n \le 10^5$
- $1 \le arr[i] \le 2 \times 10^4$, where $0 \le i < n$
- It is guaranteed that a solution always exists.

The first line contains an integer n, the size of the array arr.

Each of the next n lines contains an integer, arr[i] where $0 \le i < n$.

Sample Case 0

Sample Input 0

4

1

2

3

3

Sample Output 0

2

Explanation 0

- The sum of the first two elements, 1+2=3. The value of the last element is 3.
- Using zero-based indexing, arr[2]=3 is the pivot between the two subarrays.
- The index of the pivot is 2.

Sample Case 1

Sample Input 1

3

1

2

1

Sample Output 1

1

Explanation 1

- The first and last elements are equal to 1.
- Using zero-based indexing, arr[1]=2 is the pivot between the two subarrays.
- The index of the pivot is 1.

For example:

Input	Result
4 1 2 3 3	2
3 1 2 1	1

Answer: (penalty regime: 0 %)

```
def find_pivot_index(arr):

    total_sum = sum(arr)
    left_sum = 0
    for i in range(n):

        total_sum -= arr[i]

        if left_sum == total_sum:
            return i


        left_sum += arr[i]


    return -1
n = int(input())
arr = list(map(int, input().split()))

pivot_index = find_pivot_index(arr)


print(pivot_index)
```

	Input	Expected	Got	
✓	[illegible]	2	2	✓
✓	[illegible]	1	1	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 8
Correct
Mark 1.00 out of 1.00
Flag question

Write a Python program to check if a given list is strictly increasing or not. Moreover, if removing only one element from the list results in a strictly increasing list, we still consider the list true.

Input:

n : Number of elements

List1: List of values

Output

Print "True" if list1 is strictly increasing or decreasing else print "False".

Sample Test Case

Input

7

2
3
4
5
6

Output

True

Answer: (penalty regime: 0 %)

	Input	Expected	Got	
✓	1	True	True	✓
✓	4	True	True	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Input Format

Output Format

Sample Input

Output

Sample Input

Output

For example:

Input	Result
[illegible]	[illegible]
[illegible]	[illegible]

GE19211 / GE23233 / GE23231 - PSPP/PUP

Quiz navigation

1 ✓ 2 ✓ 3 ✓ 4 ✓ 5 ✓ 6 ✓ 7 ✓ 8 ✓ 9 ✓ 10 ✓

Show one page at a time

Finish review

Started on	Tuesday, 23 April 2024, 1:49 PM
State	Finished
Completed on	Sunday, 28 April 2024, 4:03 PM
Time taken	5 days 2 hours
Overdue	3 days 2 hours
Marks	10.00/10.00
Grade	**100.00** out of 100.00

Question **1**
Correct
Mark 1.00 out of 1.00
Flag question

Reverse a string **without affecting special characters**
Given a string **S**, containing special characters and all the alphabets, reverse the string without affecting the positions of the special characters.

Input:

A&B

Output:

B&A

Explanation: As we ignore '&' and
As we ignore '&' and then reverse, so answer is "B&A".

For example:

Input	Result
A&x#	x&A#

Answer: (penalty regime: 0 %)

```
S = input().strip()
S_list = list(S)
left = 0
right = len(S_list) - 1
while left < right:
    if S_list[left].isalpha() and S_list[right
        S_list[left], S_list[right] = S_list[r
        left += 1
        right -= 1
    elif not S_list[left].isalpha():
        left += 1
    elif not S_list[right].isalpha():
        right -= 1
result = ''.join(S_list)
print(result)
```

	Input	Expected	Got	
✓	A&B	B&A	B&A	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **2**
Correct
Mark 1.00 out of 1.00
Flag question

Write a program to check if two strings are balanced. For example, strings s1 and s2 are balanced if all the characters in the s1 are present in s2. The character's position doesn't matter. If balanced display as "true" ,otherwise "false".

For example:

Input	Result
Yn PYnative	True

Answer: (penalty regime: 0 %)

```
s1 = input()
s2 = input()
print(set(s1).issubset(set(s2)))
```

	Input	Expected	Got	
✓	Yn PYnative	True	True	✓
✓	Ynf PYnative	False	False	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **3**
Correct
Mark 1.00 out of 1.00
Flag question

Given two Strings s1 and s2, remove all the characters from s1 which is present in s2.

Constraints

1<= string length <= 200

Sample Input 1

experience
enc

Sample Output 1

xpri

Answer: (penalty regime: 0 %)

```
s1 = input()
s2 = input()
s2_set = set(s2)
result = ''.join(char for char in s1 if char no

print(result)
```

	Input	Expected	Got	
✓	experience enc	xpri	xpri	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **4**
Correct
Mark 1.00 out of 1.00
Flag question

Write a python program to count all letters, digits, and special symbols respectively from a given string

For example:

Input	Result
rec@123	3 3 1

Answer: (penalty regime: 0 %)

```
input_string = input()
letters = sum(1 for char in input_string if cha
digits = sum(1 for char in input_string if char
specials = len(input_string) - letters - digits
print( letters)
print( digits)
print( specials)
```

	Input	Expected	Got	
✓	rec@123	3 3 1	3 3 1	✓
✓	P@#yn26at^&i5ve	8 3 4	8 3 4	✓
✓	abc@12&	3 2 2	3 2 2	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **5**
Correct
Mark 1.00 out of 1.00
Flag question

Given a string S which is of the format USERNAME@DOMAIN.EXTENSION, the program must print the EXTENSION, DOMAIN, USERNAME in the reverse order.

Input Format:

The first line contains S.

Output Format:

The first line contains EXTENSION.
The second line contains DOMAIN.
The third line contains USERNAME.

Boundary Condition:

1 <= Length of S <= 100

Example Input/Output 1:

Input:

abcd@gmail.com

Output:

com
gmail
abcd

Answer: (penalty regime: 0 %)

```
a=input("")
if not 1<=len(a)<=100:
    exit()
parts=a.split('@')
if len(parts)!=2:
    exit()
username=parts[0]
domainpart=parts[1].split('.')
if len(domainpart)<2:
    exit()
domain=domainpart[0]
extension='.'.join(domainpart[1:])
print(extension)
print(domain)
print(username)
```

	Input	Expected	Got	
✓	abcd@gmail.com	com gmail abcd	com gmail abcd	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **6**
Correct
Mark 1.00 out of 1.00
Flag question

String should contain only the words are not palindrome.

Sample Input 1

Malayalam is my mother tongue

Sample Output 1

is my mother tongue

Answer: (penalty regime: 0 %)

```
def remove_palindromes(sentence):
    return [word for word in sentence.lower().s
sentence = input()
print(*remove_palindromes(sentence))
```

	Input	Expected
✓	Malayalam is my mother tongue	is my mother tongu

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **7**
Correct
Mark 1.00 out of 1.00
Flag question

Two string values S1, S2 are passed as the input. The program must print first N characters present in S1 which are also present in S2.

Input Format:

The first line contains S1.
The second line contains S2.
The third line contains N.

Output Format:

The first line contains the N characters present in S1 which are also present in S2.

Boundary Conditions:

2 <= N <= 10
2 <= Length of S1, S2 <= 1000

Example Input/Output 1:

Input:

abcbde
cdefghbb
3

Output:

bcd

Note:

b occurs twice in common but must be printed only once.

Answer: (penalty regime: 0 %)

```
S1 = input().strip()
S2 = input().strip()
N = int(input())

common_chars = []
for char in S1:
    if char in S2 and char not in common_chars
        common_chars.append(char)
        if len(common_chars) == N:
            break
print(''.join(common_chars))
```

	Input	Expected	Got	
✓	abcbde cdefghbb 3	bcd	bcd	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **8**
Correct
Mark 1.00 out of 1.00
Flag question

In this exercise, you will create a program that reads words from the user until the user enters a blank line. After the user enters a blank line your program should display each word entered by the user exactly once. The words should be displayed in the same order that they were first entered. For example, if the user enters:

first

second

first

third

second

then your program should display:

first

second

third

Answer: (penalty regime: 0 %)

```
words = []
while True:
    try:
        word = input().strip()
        if not word:
            break
        if word not in words:
            words.append(word)
    except EOFError:
        break
print(*words, sep='\n')
```

	Input	Expected	Got	
✓	first second first third second	first second third	first second third	✓
✓	rec cse it rec cse	rec cse it	rec cse it	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **9**
Correct
Mark 1.00 out of 1.00
Flag question

Write a program that takes as input a string (sentence), and returns its second word in uppercase.

For example:

If input is "Wipro Technologies Bangalore" the function should return "TECHNOLOGIES"

If input is "Hello World" the function should return "WORLD"

If input is "Hello" the program should return "LESS"

NOTE 1: If input is a sentence with less than 2 words, the program should return the word "LESS".

NOTE 2: The result should have no leading or trailing spaces.

For example:

Input	Result
Wipro Technologies Bangalore	TECHNOLOGIES
Hello World	WORLD
Hello	LESS

Answer: (penalty regime: 0 %)

```
sentence = input().strip()
words = sentence.split()
if len(words) >= 2:
    result = words[1].upper()
else:

    result = "LESS"
print(result)
```

	Input	Expected	Got
✓	Wipro Technologies Bangalore	TECHNOLOGIES	TECHNO
✓	Hello World	WORLD	WORLD
✓	Hello	LESS	LESS

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **10**
Correct
Mark 1.00 out of 1.00
Flag question

Assume that the given string has enough memory.

Don't use any extra space(IN-PLACE)

Sample Input 1

a2b4c6

Sample Output 1

aabbbbcccccc

Answer: (penalty regime: 0 %)

```
def expand_string(input_str):
    result = ""
    i = 0
    while i < len(input_str):
        char = input_str[i]
        i += 1
        count = 0
        while i < len(input_str) and input_str
            count = count * 10 + int(input_str
            i += 1
        result += char * count
    return result
input_str =input()
output_str = expand_string(input_str)
print(output_str)
```

	Input	Expected	Got
✓	a2b4c6	aabbbbcccccc	aabbbbcccccc
✓	a12b3d4	aaaaaaaaaaaabbbdddd	aaaaaaaaaaaabbbdddd

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Finish review

GE19211 / GE23233 / GE23231 - PSPP/PUP

Dashboard / My courses / PSPP/PUP / Algorithmic Approach: Iteration control structures. / Week4_Coding

Quiz navigation

1 ✓ 2 ✓ 3 ✓ 4 ✓ 5 ✓ 6 ✓
7 ✓ 8 ✓ 9 ✓ 10 ✓

Show one page at a time

Finish review

Started on	Monday, 15 April 2024, 5:57 PM
State	Finished
Completed on	Sunday, 21 April 2024, 7:11 PM
Time taken	6 days 1 hour
Overdue	4 days 1 hour
Marks	10.00/10.00
Grade	**100.00** out of 100.00

Question **1**
Correct
Mark 1.00 out of 1.00
Flag question

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(""))

digits = str(N)
non_repeated = set()
repeated = set()

for digit in digits:
    if digit not in repeated:
        if digit in non_repeated:
            non_repeated.remove(digit)
            repeated.add(digit)
        else:
            non_repeated.add(digit)

print(len(non_repeated))

```

	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 **2**
Correct
Mark 1.00 out of 1.00
Flag question

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 %)

```
def is_disarium(number):
    num_str = str(number)
    sum_of_powers = sum(int(digit) ** (index +
    return sum_of_powers == number

num = int(input())

if is_disarium(num):
    print("Yes")
else:
    print("No")
```

	Input	Expected	Got	
✓	175	Yes	Yes	✓
✓	123	No	No	✓

Passed all tests! ✓

Correct
Marks for this submission: 1.00/1.00.

Question **3**
Correct
Mark 1.00 out of 1.00
Flag question

In mathematics, the factorial of a non-negative integer n, denoted by n!, is the product of all positive integers less than or equal to n. For example,

5! = 5 x 4 x 3 x 2 x 1 = 120

4! = 4 x 3 x 2 x 1 = 24

9! = 9 x 8 x 7 x 6 x 5 x 4 x 3 x 2 x 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 %)

```
def factorial(n):
    if n == 0 or n == 1:
        return 1
    else:
        return n * factorial(n - 1)

num = int(input())

if num < 1 or num > 12:
    print("Input number should be between 1 an
else:
    print(factorial(num))
```

	Input	Expected	Got	
✓	5	120	120	✓
✓	4	24	24	✓
✓	9	362880	362880	✓

Passed all tests! ✓

Correct
Marks for this submission: 1.00/1.00.

Question **4**
Correct
Mark 1.00 out of 1.00
Flag question

Given a positive integer N, check whether it can be represented as a product of single digit numbers.

Input Format:

Single Integer input.

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 %)

```
def is_product_of_single_digits(n):
    return "Yes" if n < 10 or any(n % i == 0 an

num = int(input())
print(is_product_of_single_digits(num))
```

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

Passed all tests! ✓

Correct
Marks for this submission: 1.00/1.00.

Question **5**
Correct
Mark 1.00 out of 1.00
Flag question

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

Answer: (penalty regime: 0 %)

```
def next_perfect_square(n):
    root = int(n ** 0.5)
    while True:
        root += 1
        if root ** 2 > n:
            return root ** 2

num = int(input())
print(next_perfect_square(num))
```

	Input	Expected	Got	
✓	10	16	16	✓

Passed all tests! ✓

Correct
Marks for this submission: 1.00/1.00.

Question **6**
Correct
Mark 1.00 out of 1.00
Flag question

Write a program to return the nth number in the fibonacci series.

The value of N will be passed to the program as input.

NOTE: Fibonacci series looks like –

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

i.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 %)

```
def fibonacci(n):
    if n <= 0:
        return "Invalid input"
    elif n == 1:
        return 0
    elif n == 2:
        return 1
    else:
        a, b = 0, 1
        for _ in range(2, n):
            a, b = b, a + b
        return b

num = int(input())
print(fibonacci(num))
```

	Input	Expected	Got	
✓	1	0	0	✓
✓	4	2	2	✓
✓	7	8	8	✓

Passed all tests! ✓

Correct
Marks for this submission: 1.00/1.00.

Question **7**
Correct
Mark 1.00 out of 1.00
Flag question

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 <= N <=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 %)

```
N = int(input(""))

if N <= 1:
    print(1)  # Not prime
elif N <= 3:
    print(2)  # 2 and 3 are prime
elif N % 2 == 0 or N % 3 == 0:
    print(1)  # Not prime
else:
    i = 5
    while i * i <= N:
        if N % i == 0 or N % (i + 2) == 0:
            print(1)  # Not prime
            break
        i += 6
    else:
        print(2)  # Prime

```

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

Passed all tests! ✓

Correct
Marks for this submission: 1.00/1.00.

Question **8**
Correct
Mark 1.00 out of 1.00
Flag question

Given an integer N, check whether N the given number can be made a perfect square after adding to it.

Input Format:

Single integer input.

Output Format:

Yes or No.

Example Input:

24

Output:

Yes

Example Input:

26

Output:

No

For example:

Input	Result
24	Yes

Answer: (penalty regime: 0 %)

```

import math
num = int(input())
new_num = num + 1
diff = new_num - num
if math.isqrt(num + diff) ** 2 == (num + diff):
    print("Yes")
else:
    print("No")
```

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

Passed all tests! ✓

Correct
Marks for this submission: 1.00/1.00.

Question **9**
Correct
Mark 1.00 out of 1.00
Flag question

Write a program to find the count of unique 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.

For e.g.

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 %)

```
number = int(input())
unique_digits = len(set(str(number)))
print(unique_digits)

```

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

Passed all tests! ✓

Correct
Marks for this submission: 1.00/1.00.

Question **10**
Correct
Mark 1.00 out of 1.00
Flag question

Write a program to find the sum of the series 1 +11 + 111 + 1111 + . . . + n terms (n will be given as input from the user and sum will be the output)

Sample Test Cases

Test Case 1

Input

4

Output

1234

Test Case 2

Input

6

Output

123456

Answer: (penalty regime: 0 %)

```
def series_sum(n):
    return sum(int('1' * i) for i in range(1, n

# Get input from the user
n = int(input())

# Calculate and print the sum of the series
print(series_sum(n))
```

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

Passed all tests! ✓

Correct
Marks for this submission: 1.00/1.00.

Finish review

GE19211 / GE23233 / GE23231 - PSPP/PUP

Quiz navigation

1	2	3	4	5	6
✓	✓	🟥	✓	✓	✓
7	8	9	10		
✓	✓	✓	✓		

Show one page at a time

Finish review

Started on	Saturday, 13 April 2024, 9:31 AM
State	Finished
Completed on	Saturday, 13 April 2024, 9:39 PM
Time taken	11 hours 39 mins
Marks	9.60/10.00
Grade	**96.00** out of 100.00

Question **1**
Correct
Mark 1.00 out of 1.00
Flag question

The length of a month varies from 28 to 31 days. In this exercise you will create a program that reads the name of a month from the user as a string. Then your program should display the number of days in that month. Display "28 or 29 days" for February so that leap years are addressed.

Sample Input 1

February

Sample Output 1

February has 28 or 29 days in it.

Sample Input 2

March

Sample Output 2

March has 31 days in it.

Sample Input 3

April

Sample Output 3

April has 30 days in it.

For example:

Input	Result
February	February has 28 or 29 days in it.

Answer: (penalty regime: 0 %)

```
a = input()

if a == 'January' or a == 'March' or a == 'May'
    print(a,"has 31 days in it.")
elif a == 'February':
    print(a,"has 28 or 29 days in it.")
else:
    print(a,"has 30 days in it.")
```

	Input	Expected	Got
✓	February	February has 28 or 29 days in a...	Febru
✓	March	March has 31 days in a...	March
✓	April	April has 30 days in th...	April
✓	May	May has 31 days in th...	May

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Flag question

These numbers form a Pythagorean triple if the sum of squares of two numbers is equal to the square of the third.

For example, 3, 5 and 4 form a Pythagorean triple, since 3*3 + 4*4 = 25 = 5*5

You are given three integers, a, b, and c. They need not be given in increasing order. If they form a Pythagorean triple, then print "yes", otherwise, print "no". Please note that the output message is in small letters.

Sample Input 1

3

5

4

Sample Output

yes

Sample Test Cases

Test Case 1

Input

3

5

4

Output

yes

Test Case 2

Input

5

8

2

Output

no

Answer: (penalty regime: 0 %)

```
A = int(input())
B = int(input())
C = int(input())
if A>B :
    A,B = B,A
if A>C:
    A,C = C,A
if B>C:
    B,C = C,B
if A**2 + B**2 == C**2 :
    print("yes")
else:
    print("no")
```

	Input	Expected	Got	
✓	3 5 4	yes	yes	✓
✓	5 6 7	no	no	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Marked out of 1.00

Flag question

Most years have 365 days. However, the time required for the Earth to orbit the Sun is actually slightly more than that. As a result, an extra day, February 29, is included in some years to correct for this difference. Such years are referred to as leap years. The rules for determining whether or not a year is a leap year follow:

- Any year that is divisible by 400 is a leap year.

- Of the remaining years, any year that is divisible by 100 is not a leap year.

- Of the remaining years, any year that is divisible by 4 is a leap year.

year.

- All other years are not leap years.

Write a program that reads a year from the user and displays a message indicating whether or not it is a leap year.

Sample Input 1

1900

Sample Output 1

1900 is not a leap year.

Sample Input 2

2000

Sample Output 2

2000 is a leap year.

Answer: (penalty regime: 0 %)

```
A = int(input())
if A%400 == 0:
    print(A, "is a leap year.")
else:
    print(A ,"is not a leap year.")
```

	Input	Expected	Got
✓	1900	1900 is not a leap year.	1900 is not a lea
✓	2000	2000 is a leap year.	2000 is a leap ye
✓	2100	2100 is not a leap year.	2100 is not a lea
✗	2020	2020 is a leap year.	2020 is not a lea

Your code must pass all tests to earn any marks. Try again.

Show differences

Incorrect

Marks for this submission: 0.00/1.00.

Correct

Mark 1.00 out of 1.00

Flag question

In this exercise you will create a program that reads a letter of the alphabet from the user. If the user enters a, e, i, o or u then your program should display a message indicating that the entered letter is a vowel. If the user enters y then your program should display a message indicating that sometimes y is a vowel, and sometimes y is a consonant. Otherwise your program should display a message indicating that the letter is a consonant.

Sample Input 1

i

Sample Output 1

It's a vowel.

Sample Input 2

y

Sample Output 2

Sometimes it's a vowel... Sometimes it's a consonant.

Sample Input 3

c

Sample Output 3

It's a consonant.

For example:

Input	Result
y	Sometimes it's a vowel... Sometimes it's a conson
c	It's a consonant.

Answer: (penalty regime: 0 %)

```
a = input("")
if (a == 'a' or a == 'e' or a == 'i' or a == 'o
    print("It's a vowel.")
elif a == 'y':
    print("Sometimes it's a vowel... Sometimes
else:
    print("It's a consonant.")
```

	Input	Expected
✓	a	It's a vowel.
✓	y	Sometimes it's a vowel... Sometimes it's a consonant.
✓	c	It's a consonant.
✓	e	It's a vowel.
✓	r	It's a consonant.

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **5**
Correct
Mark 1.00 out of 1.00
Flag question

A triangle can be classified based on the lengths of its sides as equilateral, isosceles or scalene. All three sides of an equilateral triangle have the same length. An isosceles triangle has two sides that are the same length, and a third side that is a different length. If all of the sides have different lengths then the triangle is scalene.

Write a program that reads the lengths of the three sides of a triangle from the user. Then display a message that states the triangle's type.

Sample Input 1

60

60

60

Sample Output 1

That's a equilateral triangle

Sample Input 2

40

40

80

Sample Output 2

That's a isosceles triangle

Sample Input 3

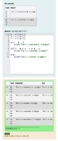
50

60

70

Sample Output 3

That's a scalene triangle



For example:

Input	Result
[illegible]	That's a equilateral triangle
[illegible]	That's a isosceles triangle

Answer: (penalty regime: 0 %)

```
A = int(input())
B = int(input())
C = int(input())

if A == B == C:
    print("That's a equilateral triangle")

elif A == B or A == C or B == C:
    print("That's a isosceles triangle")

else:
    print("That's a scalene triangle")
```

	Input	Expected	Got
✓	[illegible]	That's a equilateral triangle	That's a equ
✓	[illegible]	That's a isosceles triangle	That's a iso
✓	[illegible]	That's a scalene triangle	That's a sca
✓	[illegible]	That's a isosceles triangle	That's a iso
✓	[illegible]	That's a equilateral triangle	That's a equ

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 8
Correct
Marked out of 1.00
Flag question

Write a program that returns the second last digit of the given number. Second last digit is being referred to the digit in the tens place in the given number.

For example, if the given number is 197, the second last digit is 9.

Note1 - The second last digit should be returned as a positive number, i.e. if the given number is -197, the second last digit is 9.

Note2 - If the given number is a single digit number, then the second last digit does not exist. In such cases, the program should return -1. i.e. if the given number is 5, the second last digit should be returned as -1.

For example:

Input	Result
197	9
5	-1

Answer: (penalty regime: 0 %)

```
a = int(input())
b = str(a)
if len(b) >= 2:
    c = str(b)[-2]
    print(c)
else:
    print(-1)
```

	Input	Expected	Got	
✓	197	9	9	✓
✓	-197	9	9	✓
✓	5	-1	-1	✓
✓	[illegible]	1	[illegible]	✓
✓	0	-1	-1	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 7
Correct
Mark 1.00 out of 1.00
Flag question

Write a program to find the eligibility of admission for a professional course based on the following criteria:

Minimum Maths >= 65

Minimum Physics >= 55

Minimum Chemistry >= 50

Or

Total in all three subjects >= 180

Sample Test Cases

Test Case 1

Input

70

60

80

Output

The candidate is eligible

Test Case 2

Input

50

80

80

Output

The candidate is eligible

Test Case 3

Input

50

60

40

Output

The candidate is not eligible

For example:

Input	Result
70 60 80	The candidate is eligible

Answer: (penalty regime: 0 %)

```
A = int(input())
B = int(input())
C = int(input())
if A + B + C > 100:

    print("The candidate is eligible")
else:
    print("The candidate is not eligible")
```

	Input	Expected	Got
✓	[illegible]	The candidate is eligible	The candida
✓	[illegible]	The candidate is eligible	The candida
✓	[illegible]	The candidate is not eligible	The candida
✓	[illegible]	The candidate is not eligible	The candida

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **8**
Correct
Mark 1.00 out of 1.00
Flag question

[illegible]

Ms. Ella, the Faculty handling programming lab for you is very strict. Your seniors have told you that she will not allow you to enter the week's lab if you have not completed at least half the number of problems given last week. Many of you didn't understand this statement and so they requested the good programmers from your batch to write a program to find whether a student will be allowed into a week's lab given the number of problems given last week and the number of problems solved by the student in that week.

Input format:

Input consists of 2 integers.

The first integer corresponds to the number of problems given and the second integer corresponds to the number of problems solved.

Output Format

Output consists of the string "IN" or "OUT".

Sample Input and Output

Input

8

3

Output

OUT

For example:

Input	Result
8 3	OUT

Answer: (penalty regime: 0 %)

```
a = int(input())
b = int(input())
c = a/2
if b>=c :
    print("IN")
else :
    print("OUT")
```

	Input	Expected	Got	
✓	[illegible]	[illegible]	[illegible]	✓
✓	[illegible]	[illegible]	[illegible]	✓
✓	[illegible]	[illegible]	[illegible]	✓
✓	[illegible]	[illegible]	[illegible]	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 9

Correct

Mark 1.00 out of 1.00

Flag question

Write a program to calculate and print the Electricity bill where the unit consumed by the user is given from test case. It prints the total amount the customer has to pay. The charge are as follows:

Unit	Charge / Unit
Upto 199	@1.20
200 and above but less than 400	@1.50
400 and above but less than 600	@1.80
600 and above	@2.00

If bill exceeds Rs.400 then a surcharge of 15% will be charged and the minimum bill should be of Rs.100/-

Sample Test Cases

Test Case 1

Input

50

Output

100.00

Test Case 2

Input

300

Output

517.50

For example:

Input	Result
100.00	120.00
500	1035.00

Answer: (penalty regime: 0 %)

```
A = float(input())
if (A <= 199):
    B = A * 1.20
elif (200 <= A <400):
    B = A * 1.50
elif (400 <= A < 600):
    B = A * 1.80
else :
    B = A * 2.00
C = B * 0.15
if(B > 400):
    print(B + C)
elif(B < 100):
    print("100.00")
else:
    print(B)
```

	Input	Expected	Got	
✓	50	100.00	100.00	✓
✓	166.25	199.50	199.5	✓
✓	700	1610.00	1610.0	✓
✓	700	[illegible]	[illegible]	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question **18**

Correct

Mark 1.00 out of 1.00

Flag question

The Chinese zodiac assigns animals to years in a 12 year cycle. One 12-year cycle is shown in the table below. The pattern repeats from there, with 2012 being another year of the dragon, and 1999 being another year of the hare.

Year	Animal
2000	Dragon
2001	Snake
2002	Horse
2003	Sheep
2004	Monkey
2005	Rooster
2006	Dog
2007	Pig
2008	Rat
2009	Ox
2010	Tiger

Write a program that reads a year from the user and displays the animal associated with that year. Your program should work correctly for any year greater than or equal to zero, not just the ones listed in the table.

Sample Input 1

2010

Sample Output 1

2010 is the year of the Tiger.

Sample Input 2

2020

Sample Output 2

2020 is the year of the Rat.

Answer: (penalty regime: 0 %)

```
a = int(input())
b = a%12
c = ["Monkey","Rooster","Dog","Pig","Rat","Ox",
print(f"{a} is the year of the {c[b]}.")
```

	Input	Expected	Got
✓	2010	2010 is the year of the Tiger.	2010 is the
✓	2020	2020 is the year of the Rat.	2020 is the

Passed all tests! ✓