Started on	Thursday, 14 March 2024, 11:09 AM
State	Finished
Completed on	Thursday, 14 March 2024, 11:11 AM
Time taken	1 min 41 secs
Grade	10.00 out of 10.00 (100%)

Question 1

Correct

Mark 1.00 out of 1.00

What will be the output of the following code snippet?

```
print(type(5 / 2))
```

a. obj

b. int

c. float ✓

d. str

Your answer is correct.

The correct answer is:

float

Question 2

Correct

Mark 1.00 out of 1.00

What will be the output of the following code snippet?

```
a = 3
b = 1
print(a, b)
a, b = b, a
 print(a, b)
```

a. 1 3
   3 1

b. No output

c. 3 1
   3 1

d. 3 1 ✓
   1 3

Your answer is correct.

The correct answer is:
3 1
1 3

Question 3

Correct

Mark 1.00 out of 1.00

Who developed the Python language?

a. Dennis Ritchie

b. Von Neumann

c. Guido Van Rossum ✓

d. Bill Gates

Your answer is correct.

The correct answer is:
Guido Van Rossum

Question 4

Correct

Mark 1.00 out of 1.00

What will be the datatype of the var in the below code snippet?

```
var = 10
print(type(var))
var = "Hello"
print(type(var))
```

a. No output

b. float and str

c. int and int

d. int and str ✓

Your answer is correct.

The correct answer is:
int and str

Question 5

Correct

Mark 1.00 out of 1.00

What do we use to define a block of code in Python language?

a. Curly brace

b. Key

c. Indentation ✓

d. Parenthesis

Your answer is correct.

The correct answer is:
Indentation

Question 6

Correct

Mark 1.00 out of 1.00

Which of the following declarations is incorrect in python language?

a. x y z p = 5000 6000 7000 8000

b. x, y, z, p = 5000, 6000, 7000, 8000 ✓

c. x_y_z_p = 5,000,000

d. xyzp = 5,000,000

Your answer is correct.

The correct answer is:
x, y, z, p = 5000, 6000, 7000, 8000

Question 7

Correct

Mark 1.00 out of 1.00

Type the code to get float input from the keyboard. (No need to assign to a variable)

Answer: float(input()) ✓

The correct answer is: float(input())

Question 8

Correct

Mark 1.00 out of 1.00

Which of the following functions is a built-in function in python language?

a. printf()

b. scanf()

c. val()

d. print() ✓

Your answer is correct.

The correct answer is:
print()

Question 9

Correct

Mark 1.00 out of 1.00

What will be the output of the following python Code-

```
mystring="India is my country"
print(type(mystring))
```

a. class str

b. <class 'str'> ✓

c. 'str'

d. str

Your answer is correct.

The correct answer is:
<class 'str'>

Question 10

Correct

Mark 1.00 out of 1.00

Which one of the following is the correct extension of the Python file?

a. .cpp

b. .python

c. .py ✓

d. .p

Your answer is correct.

The correct answer is:
.py

◄ Basics of Python

Jump to...

Week1_Coding ►

Started on	Tuesday, 26 March 2024, 10:35 PM
State	Finished
Completed on	Tuesday, 26 March 2024, 10:43 PM
Time taken	8 mins 21 secs
Grade	14.00 out of 15.00 (93.33%)

Question 1

Correct

Mark 1.00 out of 1.00

What will be the output of the following statement?

```
print(15 + 20 / 5 + 3 * 2 - 1)
```

a. 19.0

b. 12

c. 19

d. 24.0 ✓

Your answer is correct.

The correct answer is:
24.0

Question 2

Correct

Mark 1.00 out of 1.00

What is the output of the following code

```
print(bool(0), bool(3.14159), bool(-3), bool(1.0+1j))
```

a. • False True True True ✓

b. • False True False True

c. • True True False True

d. • True True False True

Your answer is correct.

The correct answer is:

- False True True True

Question 3

Correct

Mark 1.00 out of 1.00

What is the value of the expression

```
print(100 / 25)
print(100//25)
```

a. 4.0
4.0

b. 4.0
4.00

c. 4.0 ✓
4

d. 4
4

Your answer is correct.

The correct answer is:
4.0
4

Question 4

Correct

Mark 1.00 out of 1.00

What is the output of the following code

```
x = 8
y = 2
print(x ** y)
print(x // y)
```

a. 64
8
4

b. 64 ✓
4

c. 64
0

d. 0
64

Your answer is correct.

The correct answer is:
64
4

Question 5

Correct

Mark 1.00 out of 1.00

What is the output of the following expression?

z=2

z**=3

print(z)

a. 0

b. 8 ✓

c. Error

d. 3

Your answer is correct.

The correct answer is:
8

Question 6

Correct

Mark 1.00 out of 1.00

An identifier can have a maximum length of -------- characters in Python.

a. 50

b. 31

c. 7

d. 79 ✓

Your answer is correct.

The correct answer is:
79

Question 7

Incorrect

Mark 0.00 out of 1.00

What will be the value of x in the following Python expression, if the result of that expression is 2?

x>>2

a. 1 ✗

b. 4

c. 2

d. 8

Your answer is incorrect.

The correct answer is:
8

Question 8

Correct

Mark 1.00 out of 1.00

In the Python statement `x = a + 6 - c-d`:

- `a` and `b` are _____
- `a + 6 - c-d` is _____

a. operands, an expression ✓

b. operators, a statement

c. terms, a group

d. operands, an equation

Your answer is correct.

The correct answer is:
operands, an expression

Question 9

Correct

Mark 1.00 out of 1.00

What is the order of precedence in python?

1. Multiplication
2. Division
3. Parentheses
4. Addition
5. Exponentiation

a. 3, 5, 1, 2, 4 ✓

b. 1, 2, 3, 4, 5

c. 3, 1, 2, 4, 5

d. 1, 5, 2, 4, 3

3, 1, 2, 4, 5

Your answer is correct.

The correct answer is:

3, 5, 1, 2, 4

Question 10

Correct

Mark 1.00 out of 1.00

Which is the following is an Arithmetic operator in Python?

1. // (floor division) operator
2. & (binary and) operator
3. ~ (navigation) operator
4. >> (right shift) operator

a. 1 ✓

b. 4

c. 3

d. 2

Your answer is correct.

The correct answer is:
1

Question 11

Correct

Mark 1.00 out of 1.00

What will be the output of statement 2**2**2**2

a. 256

b. 32768

c. 65536 ✓

d. 16

Your answer is correct.

The correct answer is:
65536

Question 12

Correct

Mark 1.00 out of 1.00

What is the value of the expression `1+2**3*4+12*((100+4)*10-200//10)` ?

a. 12493

b. -23679

c. 12273 ✓

d. -24568

Your answer is correct.

The correct answer is:

12273

Question 13

Correct

Mark 1.00 out of 1.00

What is the output of the following code

```
x = 4
    y = 10

print(x % y)
```

a. 10

b. 6

c. 4 ✓

d. 1

Your answer is correct.

The correct answer is:
4

Question 14

Correct

Mark 1.00 out of 1.00

What is the output of the following code: print 11//2?

a. 5.5

b. 5

c. 5.0

d. Error ✓

Your answer is correct.

The correct answer is:
Error

Question 15

Correct

Mark 1.00 out of 1.00

What is the output of the following code

```
x = ["apple", "banana"]
y = ["apple", "banana"]
z = x
print(x is z)
print(x is y)
print(x == y)
```

a. False
False
True

b. True ✓
False
True

c. True
True
True

d. True
False
False

Your answer is correct.

The correct answer is:
True
False
True

◄ Operators

Jump to...

Week2_Coding ►

Started on	Saturday, 13 April 2024, 9:29 PM
State	Finished
Completed on	Saturday, 13 April 2024, 9:40 PM
Time taken	11 mins 4 secs
Grade	14.00 out of 15.00 (93.33%)

Question 1

Correct

Mark 1.00 out of 1.00

What is the output of the given below program?

```
if 1 + 3 == 7:
    print("Hello")
else:
    print("Know Program")
```

a. Know Program ✓

b. Compiled Successfully. No Output.

c. Hello

d. Error

Your answer is correct.

The correct answer is:
Know Program

Question 2

Correct

Mark 1.00 out of 1.00

What is the output

```
a, b, c = 1, 3, 5

if a + b + c:

    print("Hello")

else:

    print("Know Program")
```

a. Hello ✓

b. Know Program

c. Compiled Successfully, No Output.

d. Error

Your answer is correct.

The correct answer is:
Hello

Question 3

Correct

Mark 1.00 out of 1.00

What is the output of the given below program?

```
a = 25
if a > 15:
    print("Hi")
if a <= 30:
    print("Hello")
else:
    print("Know Program")
```

a. Hi
Know Program

b. Hello
Know Program

c. Hi ✓
Hello

d. Hello

Your answer is correct.

The correct answer is:
Hi
Hello

Question 4

Correct

Mark 1.00 out of 1.00

selection is implemented with the help of _____ statement

a. if..else ✓

b. while loop

c. for loop

Your answer is correct.

The correct answer is:
if..else

Question 5

Correct

Mark 1.00 out of 1.00

Which of the following is true about the code below?

```
x = 3
if (x > 2):
    x = x * 2;
if (x > 4):
    x = 0;
print(x)
```

a. if x is greater than 2, x will equal 0 after this code executes ✓

b. if x is lesser then 0, x will be 0 after this code executes

c. x will always equal 0 after this code executes for any value of x

d. if x is greater than 2, the value in x will be doubled after this code executes

Your answer is correct.

The correct answer is:
if x is greater than 2, x will equal 0 after this code executes

Question 6

Correct

Mark 1.00 out of 1.00

To write else statement in if-elif ladder is mandatory?

a. False ✓

b. True

Your answer is correct.

The correct answer is:
False

Question 7

Correct

Mark 1.00 out of 1.00

With what extension are the python files saved?

a. . python

b. . p

c. . py ✓

d. . pyn

Your answer is correct.

The correct answer is:

. py

Question 8

Incorrect

Mark 0.00 out of 1.00

Number of elif in a program is dependent on the _____

a. All the Above ✗

b. number of variables in a program

c. number of conditions to be checked

d. number of loops in a program

Your answer is incorrect.

The correct answer is:

number of conditions to be checked

Question 9

Correct

Mark 1.00 out of 1.00

What will be output for the following code?

```
if 3 == 3:
    print("Python is easy! ")
```

a. Error

b. Python is easy! ✓

c. NO OUTPUT

Your answer is correct.

The correct answer is:
Python is easy!

Question 10

Correct

Mark 1.00 out of 1.00

____ is an empty statement in Python.

a. None

b. Jump

c. pass ✓

d. Empty

Your answer is correct.

The correct answer is:
pass

Question 11

Correct

Mark 1.00 out of 1.00

What is the output of the given below program?

```
if 1 + 3 == 7:
    print("Hello")
else:
    print("Know Program")
```

a. Compiled Successfully. No Output

b. Know Program ✓

c. Hello

d. Error

Your answer is correct.

The correct answer is:

Know Program

Question 12

Correct

Mark 1.00 out of 1.00

```
if(x=-1):
    print("present")
else:
    print("absent")
```

a. present ✓

b. absent

c. Runtime Error

d. compilation error

Your answer is correct.

The correct answer is:

present

Question 13

Correct

Mark 1.00 out of 1.00

What is the output of the following code snippet?

```
a = "Hi"
b = "Arjuna"
c = "Bhimaa"
print("Hi", a, b, c)
```

- a. Hi Hi Arjuna Bhimaa ✓
- b. Hi Arjuna Bhimaa
- c. Hi Arjuna Hi Bhimaa
- d. Hi Arjuna Bhimaa Hi

Your answer is correct.

The correct answer is:
Hi Hi Arjuna Bhimaa

Question 14

Correct

Mark 1.00 out of 1.00

choose a valid Python if statement :

- a. if (a => 22)
- b. if a>=2 : ✓
- c. if (a >= 2)

Your answer is correct.

The correct answer is:
if a>=2 :

Question 15

Correct

Mark 1.00 out of 1.00

What is the output when the following sequence of instructions is carried out in the console?

```
a = 1; a = a + 1; a = a + 2; a = a + 3; print(a)
```

a. 6

b. 4

c. 5

d. 7 ✓

Your answer is correct.

The correct answer is:
7

◄ Selection control structures

Jump to. . .

Week3_coding ►

Started on	Saturday, 13 April 2024, 9:56 PM
State	Finished
Completed on	Saturday, 13 April 2024, 10:16 PM
Time taken	19 mins 54 secs

Question 1

Complete

```
How many times the loop run?
for i in range(-3):
   print(i)
```

Answer: 1

Question 2

Complete

```
Predict the output of the following
i = 2
while i < 4:
    print(i)
    i += 1
```

a. 1 2 3 4

b. 3 4

c. 2 3 4

d. 2 3

Question 3

Complete

```
i = 0
while i <3 :
        print(i)
        i += 1
        if i == 2:
                continue
        else:
                print(0)

What is the output of the following?
```

a. 0
1
1
1
0

b. 0
0
1
2
0

c. 0
0
1
1
0

d. 0
1
2
0

Question 4

Complete

A while loop in python is used for what type of iteration?

a. indiscriminant

b. definite

c. discriminant

d. indefinite

Question 5

Complete

The range() function by defaults increments by

Answer: 1

Question 6

Complete

A for loop can iterate over a

a. float

b. bool

c. list

d. integer

Question 7

Complete

A for loop can iterate over a

a. bool

b. integer

c. float

d. list

Question 8

Complete

```
for x in [0, 1, 2]:
   pass
```

Predict the output of the program?

a. Runtime Error

b. Compilation Error

c. Prints nothing

d. Prints 0, 1, 2

Question 9

Complete

```
Predict the output of the program?
for x in range(4):
   if x == 3: break
      print(x)
   else:
      print("Finally finished!")
```

a. Finally Finished!

b. 0
1
2
3
Finally Finished!

c. 0
1
2
3

d. 0
1
2

Question 10

Complete

For loop in python is

a. Entry Control Loop

b. Exit Control Loop

c. Multi Control Loop

d. Simple Loop

Question 11

Complete

```
How many times it will print the statement?
for i in range(102):
   print(i)
```

Answer: 102

Question 12

Complete

```
Predict the output of the program?
for x in range(2, 8, 5):
    print(x)
```

a. 2 4 6 8

b. 2 8

c. 2 7

d. 2 3 4 5 6 7 8

Question 13

Complete

For loop follows which principle?

a. You Aren't Going to Need It(YAGNI)

b. Single responsibility

c. Don't Repeat Yourself (DRY)

d. Open/closed

Question 14

Complete

```
Predict the output of the program?
for x in range(4):
   if x == 3: break
      print(x)
   else:
      print("Finally finished!")
```

a. 0
1
2
3

b. 0
1
2

c. Finally Finished!

d. 0
1
2
3
Finally Finished!

Question 15

Complete

```
Predict the output of the following
i = 2
while i < 4:
    print(i)
    i += 1
```

a. 2 3 4

b. 2 3

c. 3 4

d. 1 2 3 4

◄ Iteration control structures

Jump to. . .

Week4_Coding ►

Started on	Monday, 6 May 2024, 12:06 PM
State	Finished
Completed on	Monday, 6 May 2024, 12:35 PM
Time taken	29 mins 45 secs
Grade	11.00 out of 15.00 (73.33%)

Question 1

Incorrect

Mark 0.00 out of 1.00

What is the output of the following code?

```
print('Ab!2'.swapcase())
```

a. aB! 2

b. aB1@ ✗

c. ab12

d. AB! @

Your answer is incorrect.

The correct answer is:
aB! 2

Question 2

Correct

Mark 1.00 out of 1.00

What is the output of the following code ?

```
example = "snow world"
example[3] = 's'
print example
```

a. Error ✓ Strings cannot be modified

b. snos world

c. snow world

d. snow

Your answer is correct.

The correct answer is:
Error

Question 3

Incorrect

Mark 0.00 out of 1.00

What is the output of the following code?

```
print("*", "abcde".center(7), "*", sep="")
```

a. *abcde *

b. * abcde *

c. *abcde*

d. * abcde* ✗

Your answer is incorrect.

The correct answer is:
* abcde *

Question 4

Correct

Mark 1.00 out of 1.00

What will be the output of below Python code?

```
str1="Application"
str2=str1.replace('a','A')
print(str2)
```

Answer: ApplicAtion ✓

replace() function in string is used here to replace all the existing "a" by "A" in the given string.

The correct answer is: ApplicAtion

Question 5

Correct

Mark 1.00 out of 1.00

What is the output of the following code ?

```
str = "Welcome"
str[2] = 'a'
print(str)
```

a. Welcomea

b. aWelcome

c. Error ✓ Strings cannot be modified

d. Weacome

Your answer is correct.

The correct answer is:
Error

Question 6

Correct

Mark 1.00 out of 1.00

Strings are immutable?

Select one:

True ✓

False

The correct answer is 'True'.

Question 7

Incorrect

Mark 0.00 out of 1.00

What is the output of the following code?

```
print("rec. VIJAY".capitalize())
```

a. Rec. Vijay ✗

b. Rec. vijay

c. REC. VIJAY

d. rec. vijay

Your answer is incorrect.

The correct answer is:
Rec. vijay

Question 8

Correct

Mark 1.00 out of 1.00

Which of the following is False?

a. String is immutable.

b. capitalize() function in string is used to return a string by converting the whole given string into uppercase. ✓ capitalize() function in string gives the output by converting only the first character of the string into uppercase and rest characters into lowercase. However, upper() function is used to return the whole string into uppercase.

c. None of the mentioned

d. lower() function in string is used to return a string by converting the whole given string into lowercase.

Your answer is correct.

The correct answer is:
capitalize() function in string is used to return a string by converting the whole given string into uppercase.

Question 9

Incorrect

Mark 0.00 out of 1.00

Which of the following are valid string manipulation functions in Python?

a. count()

b. All of the mentioned

c. upper()

d. strip() ✗

Your answer is incorrect.

The correct answer is:
All of the mentioned

Question 10

Correct

Mark 1.00 out of 1.00

Which of the following will result in an error?

```
str1="python"
```

a. print(str1[2])

b. str1[1]="x" ✓ Strings are immutable. So, new values cannot be assigned at any index position in a string

c. print(str1[0:9])

d. None of the mentioned

Your answer is correct.

The correct answer is:
str1[1]="x"

Question 11

Correct

Mark 1.00 out of 1.00

What will be the output of the following code?

```
a = '2'
b = 4
print(a*b)
```

Answer: 2222 ✓

The correct answer is: 2222

Question 12

Correct

Mark 1.00 out of 1.00

What is the output of the following code?

```
str1="vijay"
for i in str1:
  print(i, end="")
```

- a. vijay ✓
- b. No output
- c. None of the above
- d. 01234

Your answer is correct.

The correct answer is:
vijay

Question 13

Correct

Mark 1.00 out of 1.00

What is the output of the following code ?

```
a = '''A
B
C'''
print(a)
```

a. ABC

b. Error

c.
```
A
BC
```

d.
```
A
B
C
```

Your answer is correct.

The correct answer is:

```
A
B
C
```

Question 14

Correct

Mark 1.00 out of 1.00

What is the output of the following Code?

print(chr(70))

Answer: F

The correct answer is: F

Question 15

Correct

Mark 1.00 out of 1.00

What is the output of "hello" +1+2+3 ?

a. hello

b. hello123

c. hello6

d. Error ✓ Cannot concantenate str and int objects.

Your answer is correct.

The correct answer is:
Error

◄ Strings

Jump to...

Week5_Coding ►

Started on	Thursday, 23 May 2024, 9:57 PM
State	Finished
Completed on	Thursday, 23 May 2024, 10:20 PM
Time taken	23 mins 27 secs
Grade	12.00 out of 15.00 (80%)

Question 1

Correct

Mark 1.00 out of 1.00

Write the output of the following:

list1=[3, 2, 5, 7, 3, 6]

```
list1.remove(3)
print(sum(list1))
```

a. 23 ✓

b. 19

c. 20

Your answer is correct.

The correct answer is:
23

Question 2

Incorrect

Mark 0.00 out of 1.00

Write the output of the following :

```
D = [1,2,3]
D1 = D
D.append(4)
print(D1)
```

Answer: [1, 2, 3, 4] ✗

The correct answer is: [1, 2, 3, 4]

Question 3

Correct

Mark 1.00 out of 1.00

Find the output?

list1 = [1, 2, 3, 4,1, 2, 3]

list1. reverse()

print(list1)

a. [4, 3, 3, 2, 2, 1, 1]

b. [1, 1, 2, 2, 3, 3, 4]

c. [3, 2, 1, 4, 3, 2, 1] ✓

d. [1, 2, 3, 4, 1, 2, 3]

Your answer is correct.

The correct answer is:
[3, 2, 1, 4, 3, 2, 1]

Question 4

Correct

Mark 1.00 out of 1.00

1. >>>list1 = [1, 3]
2. >>>list2 = list1
3. >>>list1[0] = 4
4. >>>print(list2)

Answer: [4, 3] ✓

The correct answer is: [4, 3]

Question 5

Correct

Mark 1.00 out of 1.00

Suppose listExample is ['h','e','l','l','o'], what is len(listExample)?

a. Error

b. 4

c. 5 ✓

Your answer is correct.

The correct answer is:
5

Question 6

Correct

Mark 1.00 out of 1.00

Find the output?

list1 = list('REC_CSE_ECE')

print(list1.count('_'))

a. -4

b. Error

c. 2 ✓

d. 3

Your answer is correct.

The correct answer is:
2

Question 7

Correct

Mark 1.00 out of 1.00

Find the output?

```
list3=[]
list1 ='REC_CSE_ECE'
list2= list1.split('_')
for i in list2:
    list3.extend(i)
print(len(list3))
```

a. 3

b. 9 ✓

c. 12

d. 11

Your answer is correct.

The correct answer is:
9

Question 8

Correct

Mark 1.00 out of 1.00

Suppose list1 is [35, 55, 25, 11, 3], what is min(list1)?

a. 3 ✓

b. 11

c. 35

Your answer is correct.

The correct answer is:
3

Question 9

Correct

Mark 1.00 out of 1.00

To add a new element to a list we use which command?

a. list1.add(5)

b. list1.append(5) ✓

c. list1.addEnd(5)

Your answer is correct.

The correct answer is:
list1.append(5)

Question 10

Correct

Mark 1.00 out of 1.00

Suppose list1 is [1, 3, 2], What is list1 * 2?

a. [1, 3, 2, 1, 3]

b. [1, 3, 2, 1, 3, 2] ✓

c. [2, 6, 4]

Your answer is correct.

The correct answer is:
[1, 3, 2, 1, 3, 2]

Question 11

Incorrect

Mark 0.00 out of 1.00

L=[1, 5, 9]

print(sum(L), max(L), min(L))

Answer: 15, 9, 1 ✗

The correct answer is: 15 9 1

Question 12

Incorrect

Mark 0.00 out of 1.00

Write the output of the following :

```
L = "123456"
L = list(L)
print(type(L[0]))
```

Answer: <class 'str' > ✗

The correct answer is: <class 'str'>

Question 13

Correct

Mark 1.00 out of 1.00

```
L=['Amit', 'Anita', 'Zee', 'Longest Word']
print(max(L))
```

Answer: Zee ✓

The correct answer is: Zee

Question 14

Correct

Mark 1.00 out of 1.00

What will be the output after the following statements?
m = [4, 8]
print(m * 3)

a. [4, 8, 4, 8]

b. [4, 8]

c. [4, 8, 4, 8, 4, 8] ✓

d. [4, 8] * 3

Your answer is correct.

The correct answer is:
[4, 8, 4, 8, 4, 8]

Question 15

Correct

Mark 1.00 out of 1.00

Which of the following can add only one value to a list?

a. add()

b. extend()

c. push()

d. append() ✓

Your answer is correct.

The correct answer is:

append()

◄ List

Jump to...

Week6_Coding ►

Started on	Thursday, 30 May 2024, 11:37 AM
State	Finished
Completed on	Thursday, 30 May 2024, 11:47 AM
Time taken	10 mins 9 secs
Grade	13.00 out of 15.00 (86.67%)

Question 1

Correct

Mark 1.00 out of 1.00

What will be the output of following Python code?

```
set1={2,5,3}

set2={3,1}

set3={}

set3=set1&set2

print(set3)
```

a. {3} ✓

b. {2,5,1}

c. {}

d. {2,5,3,1}

Your answer is correct.

The correct answer is:
{3}

Question 2

Correct

Mark 1.00 out of 1.00

What will set1|set2 do?

```
If set1={"a","b",3}
set2={3,7}
```

a. A new set will be created with the unique elements of set1 and set2.

b. Elements of set2 will get appended to set1

c. A new set will be created with the elements of both set1 and set2 ✓

d. Elements of set1 will get appended to set2

Your answer is correct.

The correct answer is:

A new **set** will be created with the elements of both set1 and set2

Question 3

Incorrect

Mark 0.00 out of 1.00

Which of the following Python code will create a set?

(i) set1=set((0, 9, 0))

(ii) set1=set([0, 2, 9])

(iii) set1={}

a. iii

b. i, ii

c. All of the above ✗

d. ii

Your answer is incorrect.

The correct answer is:

i, ii

Question 4

Correct

Mark 1.00 out of 1.00

Which of the following options will produce the same output?

```
t = (15, 83, 21, 49, 60,45,52,85,100)
# options i, ii, iii, or iv
print(t[:-1])
print(t[0:5])
print(t[0:8])
print(t[-7:])
```

a. i, ii

b. i, iii ✓

c. ii, iv

d. iii, iv

Your answer is correct.

The correct answer is:
i, iii

Question 5

Correct

Mark 1.00 out of 1.00

What will be the output of below Python code?

```
tupl=("python","programming","Computer")
print(tupl[-3:0])
```

a. Computer

b. () ✓

c. (Computer)

d. Error

Your answer is correct.

The correct answer is:
()

Question 6

Correct

Mark 1.00 out of 1.00

Which of the following is a Python tuple?

a. ("Wonder")

b. {1, 3, 8, 9, 41}

c. (1, 4, 5, 6, 7) ✓

d. [1, 2, 3, 4]

Your answer is correct.

The correct answer is:
(1, 4, 5, 6, 7)

Question 7

Correct

Mark 1.00 out of 1.00

What will be the output of following Python code?

```
list1=[1,3,4,2]

x=list1.pop(2)

print(set([x]))
```

a. {1, 3, 4}

b. {2}

c. {4} ✓

d. {1, 3, 2}

Your answer is correct.

The correct answer is:
{4}

Question 8

Correct

Mark 1.00 out of 1.00

What is the output of the given below program?

t = (58, 47, 36, 25, 14, 3)

x = t[2:-1]

print(x)

a. (3,14,25)

b. (36, 25, 14) ✓

c. Error

d. (58,47,36,25)

Your answer is correct.

The correct answer is:
(36, 25, 14)

Question 9

Correct

Mark 1.00 out of 1.00

Find the output of the given Python program?

```
t1 = (1,2,3,(4,5))
t2 = (3,2,1,(4,5))
print(t1>t2)
```

a. Error

b. False ✓

c. True

d. Error

Your answer is correct.

The correct answers are:
False,

Error

Question 10

Correct

Mark 1.00 out of 1.00

What will be the output of following Python code?

```
set1={0,0,9}

print(set1)
```

a. {0, 9} ✓

b. It will throw an error as there are two 0 while creating the set.

c. {9}

d. {0, 0, 9}

Your answer is correct.

The correct answer is:
{0, 9}

Question 11

Correct

Mark 1.00 out of 1.00

What is the output of the following

```
set1 = {1, 2, 3, 4, 5}
set2 = {6, 7, 1, 3, 4, 8, 2, 5}

print(set1.issubset(set2))
print(set2.issuperset(set1))
```

a. True ✓

True

b. False

False

c. True

False

d. False

True

Your answer is correct.

The correct answer is:

True

True

Question 12

Incorrect

Mark 0.00 out of 1.00

What will be the output of the below Python code?

```
t1=(55,12,78,64,25)
t1.pop(12)
print(tuple1)
```

a. 12

b. (55,78,64,25) ✗

c. (12)

d. Error

Your answer is incorrect.

The correct answer is:
Error

Question 13

Correct

Mark 1.00 out of 1.00

If a=(15,16,17,18,19,25), then a[1:-1] will be

Note :

```
a=(15,16,17,18,19,25)
print((a[1:-1]))
```

a. Error

b. (16,17,18)

c. (16,17,18,19) ✓

d. (25,19,18,17)

Your answer is correct.

The correct answer is:
(16,17,18,19)

Question 14

Correct

Mark 1.00 out of 1.00

What is the output of the following union operation

```
set1 = {10, 20, 30, 40}
set2 = {50, 20, "10", 60}

set3 = set1.union(set2)
print(set3)
```

a. SyntaxError: Different types cannot be used with sets

b. {40, 10, 50, 20, 60, 30}

c. {40, '10', 50, 20, 60, 30}

d. {40, 10, '10', 50, 20, 60, 30} ✓

Your answer is correct.

The correct answer is: {40, 10, '10', 50, 20, 60, 30}

Question 15

Correct

Mark 1.00 out of 1.00

What will the below Python code do?

```
set1={2,3}

set2={3,2}

set3={2,1}

if(set1==set2):

    print("yes")

else:

    print("no")

if(set1==set3):

    print("yes")

else:

    print("no")
```

a. No, No

b. Yes, Yes

c. "==" is not supported for set in Python

d. Yes, No ✓

Your answer is correct.

The correct answer is:

Yes, No

◄ Set

Jump to...

Week7_Coding ►

Started on	Thursday, 30 May 2024, 11:49 AM
State	Finished
Completed on	Thursday, 30 May 2024, 12:12 PM
Time taken	23 mins 4 secs
Grade	12.00 out of 15.00 (80%)

Question 1

Correct

Mark 1.00 out of 1.00

_____ datatype fall under mapping.

a. Tuple

b. String

c. List

d. Dictionary ✓

The correct answer is: Dictionary

Question 2

Correct

Mark 1.00 out of 1.00

Which of the following is feature of Dictionary?

a. All of the mentioned ✓

b. Keys are unique within a dictionary.

c. Dictionary is mutable.

d. Keys must be of an immutable data type.

The correct answer is: All of the mentioned

Question 3

Correct

Mark 1.00 out of 1.00

pop function delete and _____ the element of dictionary.

a. not return

b. display

c. add

d. return ✓

The correct answer is: return

Question 4

Correct

Mark 1.00 out of 1.00

Which statement is used to create an empty dictionary?

a. d1 =

b. d1 = { } ✓

c. d1 = [ ]

d. d1 = dict{ }

The correct answer is: d1 = { }

Question 5

Correct

Mark 1.00 out of 1.00

In Python, Dictionaries are immutable

Select one:

True

False ✓

The correct answer is 'False'.

Question 6

Correct

Mark 1.00 out of 1.00

What will be the output of the following Python code snippet?

```
a={1:"A",2:"B",3:"C"}
print(a.get(5,4))
```

a. 5

b. Invalid Syntax. Error

c. A

d. 4 ✓

Your answer is correct.

The correct answer is:
4

Question 7

Correct

Mark 1.00 out of 1.00

What does the following code print?

```
names = {'Janice': 5, 'Emily': 3, 'John': 7, 'Eleanor': 2}
list_o_names = []
names['Emily'] += 10
names['Erik'] = 22

for name in names:
    if names[name] > 5:
        list_o_names.append(name)
print(list_o_names)
```

a. ['Janice', 'Emily', 'John']

b. ['Janice', 'Emily', 'John', 'Eleanor']

c. ['Emily', 'John', 'Erik'] ✓

d. ['Janice', 'John', 'Erik']

Your answer is correct.

The correct answer is:
['Emily', 'John', 'Erik']

Question 8

Correct

Mark 1.00 out of 1.00

Dictionary is a _____ data type.

a. None of the mentioned

b. Ordered

c. Mapping ✓

d. Sequence

The correct answer is: Mapping

Question 9

Correct

Mark 1.00 out of 1.00

All elements in dictionary are separated by _____.

a. Semicolon(;)

b. dot(.)

c. Comma(,) ✓

d. Colon (

The correct answer is: Comma(,)

Question 10

Incorrect

Mark 0.00 out of 1.00

Which of the following is not method of dictionary?

a. del

b. update

c. len ✗

d. pop

The correct answer is: del

Question 11

Incorrect

Mark 0.00 out of 1.00

Which one of the following is correct?

a. A python, a dictionary can neither have two same keys nor two same values.

b. A dictionary can have two same keys or same values but cannot have two same key-value pair

c. A dictionary can have two same keys with different values. ✗

d. A dictionary can have two same values with different keys.

Your answer is incorrect.

The correct answer is:

A **dictionary** can have two same values with different keys.

Question 12

Correct

Mark 1.00 out of 1.00

Following statement return values in the form of : D1. keys() # D1 is a dictionary

a. string

b. dictionary

c. tuple

d. list ✓

The correct answer is: **list**

Question 13

Correct

Mark 1.00 out of 1.00

What will be the output of the following Python code snippet?

```
a={}
a['a']=1
a['b']=[2,3,4]
print(a)
```

a. {'b': [2], 'a': [3]}

b. {'b': [2], 'a': 1}

c. {'b': [2, 3, 4], 'a': 1} ✓

d. Error

Your answer is correct.

The correct answer is:
{'b': [2, 3, 4], 'a': 1}

Question 14

Correct

Mark 1.00 out of 1.00

Write the output of the following codes.
>>>dl={1:10, 2:20, 3:30, 4:40, 5:50}
>>>dl. items ()

a. Error

b. [(1, 10), (2, 20), (3, 30), (4, 40), (5, 50)] ✓

c. [1, 2, 3, 4, 5]

d. [10, 20, 30, 40, 50]

Your answer is correct.

The correct answer is:
[(1, 10), (2, 20), (3, 30), (4, 40), (5, 50)]

Question 15

Incorrect

Mark 0.00 out of 1.00

We can repeat the values of Key in Dictionary?

a. False ✕

b. True

The correct answer is: True

◄ Dictionary

Jump to...

Week8_Coding ►

Started on	Thursday, 30 May 2024, 11:16 AM
State	Finished
Completed on	Thursday, 30 May 2024, 11:35 AM
Time taken	19 mins 19 secs
Grade	13.00 out of 15.00 (86.67%)

Question 1

Correct

Mark 1.00 out of 1.00

A function may return multiple values using _____.

a. List

b. String

c. Dictionary

d. Tuple ✓

The correct answer is: Tuple

Question 2

Correct

Mark 1.00 out of 1.00

The process of dividing a computer program into separate independent blocks of code with specific functionalities is known as _____.

a. Step Programming

b. Programming

c. Modular Programming ✓

d. More Programming

The correct answer is: Modular Programming

Question 3

Correct

Mark 1.00 out of 1.00

Which keyword is used for defining a function?

a. Function

b. Define

c. Fun

d. def ✓

Your answer is correct.

The correct answer is:

def

Question 4

Correct

Mark 1.00 out of 1.00

What is the output of the following display() function call?

```
def display(**kwargs):
    for i in kwargs:
        print(i)
display(emp="Kelly", salary=9000)
```

a. TypeError

b. ('emp', 'Kelly')
('salary', 9000)

c. Kelly
9000

d. emp ✓
salary

Your answer is correct.

The correct answer is:

emp
salary

Question 5

Incorrect

Mark 0.00 out of 1.00

Which of the following statement is not true regarding functions?

a. A function definition begins with "define"

b. A function may or may not return value.

c. Function header always ends with a colon (. ✗

d. A function may or may not have parameters.

The correct answer is: A function definition begins with "define"

Question 6

Incorrect

Mark 0.00 out of 1.00

Choose the incorrect statement.

a. print(pow(2, 3))

b. None of the mentioned

c. print(pow(2.3, 3.2))

d. print(pow(2, 3, 2)) ✗

The correct answer is: None of the mentioned

Question 7

Correct

Mark 1.00 out of 1.00

Which of the following is not the scope of variable?

a. Outside ✓

b. Local

c. Global

d. None of the mentioned

The correct answer is: Outside

Question 8

Correct

Mark 1.00 out of 1.00

Write the output of : print(abs(-45))

- a. 45 ✓
- b. 45.0
- c. None of the mentioned
- d. -45

The correct answer is: 45

Question 9

Correct

Mark 1.00 out of 1.00

What is the output of the following function call?

```
def funl(num):
    return num + 25
funl(5)
print(num)
```

- a. 25
- b. 5
- c. NameError ✓
- d. num

Your answer is correct.

The correct answer is:
NameError

Question 10

Correct

Mark 1.00 out of 1.00

A variable that is defined inside any function or a block is known as a _____.

- a. Local variable ✓
- b. inside variable
- c. Function Variable
- d. Global variable

The correct answer is: Local variable

Question 11

Correct

Mark 1.00 out of 1.00

The _____ statement returns the values from the function to the calling function.

a. send

b. return ✓

c. give

d. take

The correct answer is: return

Question 12

Correct

Mark 1.00 out of 1.00

Choose the correct statement

a. We can create function with no argument and no return value.

b. We can create function with no argument and with return value(s)

c. We can create function with argument(s) and no return value.

d. All of the mentioned ✓

The correct answer is: All of the mentioned

Question 13

Correct

Mark 1.00 out of 1.00

Which module is to be imported for using randint function?

a. random ✓

b. randrange

c. randomrange

d. rand

The correct answer is: random

Question 14

Correct

Mark 1.00 out of 1.00

What will be the output of the following Python code?

```
def maximum(x, y):
    if x > y:
        return x
    elif x == y:
        return 'The numbers are equal'
    else:
        return y
print(maximum(2, 3))
```

a. 3 ✓

b. 2

c. The numbers are equal

d. None of the mentioned

Your answer is correct.

The correct answer is:

3

Question 15

Correct

Mark 1.00 out of 1.00

Write the output of : print(max([1, 2, 3, 4], [4, 5, 6], [7]))

a. 7

b. [1, 2, 3, 4]

c. [7] ✓

d. [4, 5, 6]

The correct answer is: [7]

◄ Functions

Jump to...

Week9_Coding ►

Started on	Thursday, 30 May 2024, 11:12 AM
State	Finished
Completed on	Thursday, 30 May 2024, 11:14 AM
Time taken	2 mins 21 secs
Grade	15.00 out of 15.00 (100%)

Question 1

Correct

Mark 1.00 out of 1.00

Which of the following is not a limitation of binary search algorithm?

a. Must use a sorted array

b. Requirement of sorted array is expensive when a lot of insertion and deletions are needed

c. There must be a mechanism to access middle element directly

d. Binary search algorithm is not efficient when the data elements more than 1500 ✓

Your answer is correct.

The correct answer is:
Binary search algorithm is not efficient when the data elements more than 1500

Question 2

Correct

Mark 1.00 out of 1.00

In _____ checks the elements of a list, one at a time, without skipping any element.

a. Hash search

b. Linear search ✓

c. Both (1) & (3)

d. Binary search

Your answer is correct.

The correct answer is:
Linear search

Question 3

Correct

Mark 1.00 out of 1.00

Algorithm design technique used in merge sort algorithm is

a. Greedy method

b. Divide and conquer ✓

c. Dynamic programming

d. Backtracking

Your answer is correct.

The correct answer is:
Divide and conquer

Question 4

Correct

Mark 1.00 out of 1.00

Finding the location of a given item in a collection of items is called

a. Discovering

b. Mining

c. Finding

d. Searching ✓

Your answer is correct.

The correct answer is:
Searching

Question 5

Correct

Mark 1.00 out of 1.00

Very slow way of sorting is_____

a. Heap sort

b. Bubble sort

c. Insertion sort ✓

d. Quick sort

Your answer is correct.

The correct answer is:
Insertion sort

Question 6

Correct

Mark 1.00 out of 1.00

_____ search takes a sorted/ordered list and divides it in the middle.

a. Binary ✓

b. Linear

c. Both (1) & (3)

d. Hash

Your answer is correct.

The correct answer is:

Binary

Question 7

Correct

Mark 1.00 out of 1.00

_____sort is the simplest sorting algorithm that works by repeatedly swapping the adjacent elements in case they are unordered in n-1 passes.

a. Insertion

b. Bubble ✓

c. Complexity

d. Selection

Your answer is correct.

The correct answer is: Bubble

Question 8

Correct

Mark 1.00 out of 1.00

What is mean by stable sorting algorithm?

a. A sorting algorithm is stable if it preserves the order of duplicate keys ✓

b. A sorting algorithm is stable if it preserves the order of all keys

c. A sorting algorithm is stable if it preserves the order of non-duplicate keys

d. A sorting algorithm is stable if it doesn't preserver the order of duplicate keys

Your answer is correct.

The correct answer is:

A sorting algorithm is stable if it preserves the order of duplicate keys

Question 9

Correct

Mark 1.00 out of 1.00

_____ explain how an algorithm will perform when the input grows larger.

a. Sorting

b. Complexity ✓

c. Searching

d. Merging

Your answer is correct.

The correct answer is:

Complexity

Question 10

Correct

Mark 1.00 out of 1.00

The process of placing or rearranging a collection of elements into a particular order is known as

a. Sorting ✓

b. Searching

c. Rearranging

d. Merging

Your answer is correct.

The correct answer is: Sorting

Question 11

Correct

Mark 1.00 out of 1.00

Given an array arr = {45, 77, 89, 90, 94, 99, 100} and key = 100; What are the mid values(corresponding array elements) generated in the first and second iterations?

a. 89 and 94

b. 90 and 100

c. 94 and 99

d. 90 and 99 ✓

Your answer is correct.

The correct answer is:
90 and 99

Question 12

Correct

Mark 1.00 out of 1.00

Two-way merge sort algorithm is used to sort the following elements in ascending order.
200, 470, 150, 80, 90, 40, 400, 300, 120, 70
What is the order of these elements after second pass of the merge sort algorithm?

a. 40, 80, 90, 150, 200, 300, 400, 470, 70, 120

b. 40, 70, 80, 90, 120, 150, 200, 300, 400, 470

c. 80, 150, 200, 470, 40, 90, 300, 400, 70, 120 ✓

d. 200, 470, 80, 150, 40, 90, 300, 400, 70, 120

Your answer is correct.

The correct answer is:
80, 150, 200, 470, 40, 90, 300, 400, 70, 120

Question 13

Correct

Mark 1.00 out of 1.00

_____is putting an element in the appropriate place in a sorted list yields a larger sorted order list.

a. Extraction

b. Distribution

c. Selection

d. Insertion ✓

Your answer is correct.

The correct answer is:

Insertion

Question 14

Correct

Mark 1.00 out of 1.00

The average case occurs in the linear search algorithm

a. When the item is somewhere in the middle of the array ✓

b. When the item is the last element in the array

c. When the item is not the array at all

d. Item is the last element in the array or item is not there at all

Your answer is correct.

The correct answer is:

When the item is somewhere in the middle of the array

Question 15

Correct

Mark 1.00 out of 1.00

Which of the following is not the required condition for a binary search algorithm?

a. The list must be sorted

b. Number values should only be present

Number values should only be present

c. There must be a mechanism to delete and/or insert elements in the list ✓

d. There should be direct access to the middle element in any sublist

Your answer is correct.

The correct answer is:
There must be a mechanism to delete and/or insert elements in the list

◄ Searching

Jump to...

Week10_Coding ►

Started on	Thursday, 14 March 2024, 11:12 AM
State	Finished
Completed on	Thursday, 14 March 2024, 12:42 PM
Time taken	1 hour 30 mins
Marks	6.00/6.00
Grade	100.00 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

Write a program to convert strings to an integer and float and display its type.

Sample Input :

10

10.9

Sample Output :

10,<class 'int'>

10.9,<class 'float'>

For example:

Input	Result
10 10.9	10,<class 'int'> 10.9,<class 'float'>

Answer: (penalty regime: 0 %)

```
num_1=int(input())
num_2=float(input())
print(num_1,type(num_1),sep=",")
print(round(num_2,1),type(num_2),sep=",")
```

	Input	Expected	Got	
✓	10 10.9	10,<class 'int'> 10.9,<class 'float'>	10,<class 'int'> 10.9,<class 'float'>	✓
✓	12 12.5	12,<class 'int'> 12.5,<class 'float'>	12,<class 'int'> 12.5,<class 'float'>	✓
✓	89 7.56	89,<class 'int'> 7.6,<class 'float'>	89,<class 'int'> 7.6,<class 'float'>	✓
✓	55000 56.2	55000,<class 'int'> 56.2,<class 'float'>	55000,<class 'int'> 56.2,<class 'float'>	✓
✓	2541 2541.679	2541,<class 'int'> 2541.7,<class 'float'>	2541,<class 'int'> 2541.7,<class 'float'>	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 2

Correct

Mark 1.00 out of 1.00

Ramesh's basic salary is input through the keyboard. His dearness allowance is 40% of his basic salary, and his house rent allowance is 20% of his basic salary. Write a program to calculate his gross salary.

Sample Input:

10000

Sample Output:

16000

For example:

Input	Result
10000	16000

Answer: (penalty regime: 0 %)

```
basic_salary = int(input())
dearness_allowance = (basic_salary/100)*40
house_rent= (basic_salary/100)*20
gross_salary = basic_salary+dearness_allowance+
print(int(gross_salary))
```

	Input	Expected	Got	
✓	10000	16000	16000	✓
✓	20000	32000	32000	✓
✓	28000	44800	44800	✓
✓	5000	8000	8000	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 3

Correct

Mark 1.00 out of 1.00

Write a simple python program to find the square root of a given floating point number. The output should be displayed with 3 decimal places.

Sample Input:

8.00

Sample Output:

2.828

For example:

Input	Result
14.00	3.742

Answer: (penalty regime: 0 %)

```
import math
num = float(input())
print(round(math.sqrt(num),3))
```

	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.

Question 4

Correct

Mark 1.00 out of 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=int(input())
y=int(input())
z=int(input())
gain=((z-(x+y))/(x+y))*100
print(f"{gain:.2f} is the gain percent.")
```

	Input	Expected	Got	
✓	10000 250 15000	46.34 is the gain percent.	46.34 is the gain percent.	✓
✓	45500 500 60000	30.43 is the gain percent.	30.43 is the gain percent.	✓

	Input	Expected	Got	
✓	5000 0 7000	40.00 is the gain percent.	40.00 is the gain percent.	✓
✓	12500 5000 18000	2.86 is the gain percent.	2.86 is the gain percent.	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 5

Correct

Mark 1.00 out of 1.00

In many jurisdictions, a small deposit is added to drink containers to encourage people to recycle them. In one particular jurisdiction, drink containers holding one liter or less have a $0.10 deposit and drink containers holding more than one liter have a $0.25 deposit. Write a program that reads the number of containers of each size(less and more) from the user. Your program should continue by computing and displaying the refund that will be received for returning those containers. Format the output so that it includes a dollar sign and always displays exactly two decimal places.

Sample Input

10

20

Sample Output

Your total refund will be $6.00.

For example:

Input	Result
20 20	Your total refund will be $7.00.

Answer: (penalty regime: 0 %)

```
a=int(input())
b=int(input())
c=(a*0.10)+(b*0.25)
print(f"Your total refund will be ${c:.2f}.")
```

	Input	Expected	Got	
✓	20 20	Your total refund will be $7.00.	Your total refund will be $7.00.	✓
✓	11 22	Your total refund will be $6.60.	Your total refund will be $6.60.	✓
✓	123 200	Your total refund will be $62.30.	Your total refund will be $62.30.	✓
✓	76 38	Your total refund will be $17.10.	Your total refund will be $17.10.	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 6

Correct

Mark 1.00 out of 1.00

Justin is a carpenter who works on an hourly basis. He works in a company where he is paid Rs 50 for an hour on weekdays and Rs 80 for an hour on weekends. He works 10 hrs more on weekdays than weekends. If the salary paid for him is given, write a program to find the number of hours he has worked on weekdays and weekends.

Hint :

If the final result(hrs) are in -ve convert that to +ve using abs() function

The `abs()` function returns the absolute value of the given number.

```
number = -20
absolute_number = abs(number)
print(absolute_number)
# Output: 20
```

Sample Input :

450

Sample Output :

weekdays 10.38

weekend 0.38

For example:

Input	Result
450	weekdays 10.38 weekend 0.38

Answer: (penalty regime: 0 %)

```
salary=int(input())
weekend_sal=abs((salary-500)/130)
weekday_sal=weekend_sal+10
print("weekdays",f"{weekday_sal:.2f}")
print("weekend",f"{weekend_sal:.2f}")
```

	Input	Expected	Got	
✓	450	weekdays 10.38 weekend 0.38	weekdays 10.38 weekend 0.38	✓
✓	500	weekdays 10.00 weekend 0.00	weekdays 10.00 weekend 0.00	✓

	Input	Expected	Got	
✓	10000	weekdays 83.08 weekend 73.08	weekdays 83.08 weekend 73.08	✓
✓	6789	weekdays 58.38 weekend 48.38	weekdays 58.38 weekend 48.38	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

◄ Week1_Quiz

Jump to...

Operators ►

Started on	Thursday, 21 March 2024, 10:49 AM
State	Finished
Completed on	Thursday, 21 March 2024, 12:23 PM
Time taken	1 hour 34 mins
Marks	19.00/19.00
Grade	100.00 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

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 %)

```
deposit= float(input())
rate=0.04
year1=deposit*(1+rate)
year2=year1*(1+rate)
year3=year2*(1+rate)
print(f"Balance as of end of Year 1: ${year1:.2
print(f"Balance as of end of Year 2: ${year2:.2
print(f"Balance as of end of Year 3: ${year3:.2
```

	Input	Expected	Got	
✓	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.	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.	✓
✓	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.	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.	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 2

Correct

Mark 10.00 out of 10.00

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 %)

```
num_wid=int(input())
num_giz=int(input())
weight_wid=75*num_wid
weight_giz=112*num_giz
total_weight=weight_wid+weight_giz
print(f"The total weight of all these widgets a
```

	Input	Expected	Got	
✓	10 20	The total weight of all these widgets and gizmos is 2990 grams.	The total weight of all these widgets and gizmos is 2990 grams.	✓

Passed all tests! ✓

Correct

Marks for this submission: 10.00/10.00.

Question 3

Correct

Mark 1.00 out of 1.00

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 %)

```
weapon=int(input())
soldier=int(input())
cw=weapon % 3 == 0
cs=soldier % 2 == 0
win=cw and cs
print(win)

```

	Input	Expected	Got	
✓	32 43	False	False	✓
✓	273 7890	True	True	✓
✓	800 4590	False	False	✓

	Input	Expected	Got	
✓	6789 32996	True	True	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 4

Correct

Mark 1.00 out of 1.00

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 %)

```
num=int(input())
last_digit=abs(num)%10
print(last_digit)
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 5

Correct

Mark 1.00 out of 1.00

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 20 10	True False True True

Answer: (penalty regime: 0 %)

```
num=int(input())
ch1=int(input())
ch2=int(input())
ch3=int(input())
ch4=int(input())
pack1=ch1 % num == 0
pack2=ch2 % num == 0
pack3=ch3 % num == 0
pack4=ch4 % num == 0
print(pack1,end=" ")
print(pack2,end=" ")
print(pack3,end=" ")
print(pack4)
```

	Input	Expected	Got	
✓	5 25 23 20 10	True False True True	True False True True	✓
✓	4 23 24 21 12	False True False True	False True False True	✓
✓	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 6

Correct

Mark 1.00 out of 1.00

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 %)

```
num=int(input())
count_ones=(num&1)+((num>>1)&1)+((num>>2)&1)+((
print(count_ones)
```

	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 7

Correct

Mark 1.00 out of 1.00

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 %)

```
age=int(input())
weight=int(input())
limit=age>=18 and weight>40
print(limit)

```

	Input	Expected	Got	
✓	19 45	True	True	✓

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 8

Correct

Mark 1.00 out of 1.00

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 %)

```
x=int(input())
ascii=67+x
print(chr(ascii))
```

	Input	Expected	Got	
✓	0	C	C	✓

	Input	Expected	Got	
✓	1	D	D	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 9

Correct

Mark 1.00 out of 1.00

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
101	False

Answer: (penalty regime: 0 %)

```
num=int(input())
doll_sings=(num % 2 == 0)and(num>0)and(num<=100
print(doll_sings)
```

	Input	Expected	Got	
✓	56	True	True	✓
✓	101	False	False	✓
✓	-1	False	False	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 10

Correct

Mark 1.00 out of 1.00

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 total 123.00

Answer: (penalty regime: 0 %)

```
cost=int(input())
tax=((5/100)*cost)
tip=((18/100)*cost)
total=(cost+tax+tip)
print(f"The tax is {tax:.2f} and the tip is {ti
```

	Input	Expected	Got	
✓	100	The tax is 5.00 and the tip is 18.00, making the total 123.00	The tax is 5.00 and the tip is 18.00, making the total 123.00	✓
✓	250	The tax is 12.50 and the tip is 45.00, making the total 307.50	The tax is 12.50 and the tip is 45.00, making the total 307.50	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

◄ Week2_MCQ

Jump to...

Selection control structures ►

Started on	Wednesday, 27 March 2024, 9:39 PM
State	Finished
Completed on	Thursday, 28 March 2024, 12:45 PM
Time taken	15 hours 5 mins
Marks	10.00/10.00
Grade	100.00 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

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 %)

```
unit=float(input())
if unit <= 199:
     bill=unit*1.20
elif unit < 400:
     bill=unit*1.50
elif unit < 600:
     bill=unit*1.80
else :
     bill=unit*2.00
if bill > 400:
     bill+=bill*0.15
if bill <100 :
     bill=100
print(bill)
```

	Input	Expected	Got	
✓	50	100.00	100	✓
✓	100.00	120.00	120.0	✓
✓	500	1035.00	1035.0	✓
✓	700	1610.00	1610.0	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 2

Correct

Mark 1.00 out of 1.00

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

Marks in Maths >= 65

Marks in Physics >= 55

Marks in 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 %)

```
maths=int(input())
phy=int(input())
chem=int(input())
total=maths+phy+chem
if (maths>=65 and phy>=55 and chem>=50) or (tot
    print("The candidate is eligible")
else :
    print("The candidate is not eligible")
```

	Input	Expected	Got	
✓	70 60 80	The candidate is eligible	The candidate is eligible	✓
✓	50 80 80	The candidate is eligible	The candidate is eligible	✓
✓	50 60 40	The candidate is not eligible	The candidate is not eligible	✓
✓	20 10 25	The candidate is not eligible	The candidate is not eligible	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 3

Correct

Mark 1.00 out of 1.00

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 Input3

c

Sample Output 3

It's a consonant.

For example:

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

Answer: (penalty regime: 0 %)

```
letter=str(input()).lower()
if letter in ["a","e","i","o","u"]:
    message="It's a vowel."
elif letter =='y':
    message="Sometimes it's a vowel... Sometime
else :
    message= "It's a consonant."
print(message)
```

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

	Input	Expected	Got	
✓	r	It's a consonant.	It's a consonant.	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 4

Correct

Mark 1.00 out of 1.00

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

2011 Hare

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 %)

```
year=int(input())
remain=year%12
if remain==0:
    ani="Monkey"
elif remain==1:
    ani="Rooster"
elif remain==2:
    ani="Dog"
elif remain==3:
    ani="Pig"
elif remain==4:
    ani="Rat"
elif remain==5:
    ani="Ox"
elif remain==6:
    ani="Tiger"
elif remain==7:
    ani="Hare"
elif remain==8:
    ani="Dragon"
elif remain==9:
    ani="Snake"
elif remain==10:
    ani="Horse"
elif remain==11:
    ani="Sheep"
print(f"{year} is the year of the {ani}.")
```

```
31
32
33
```

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

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 that returns the second last digit of the given number. Second last digit is being referred 10the 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 %)

```
num=int(input())
num=abs(num)
num_str=str(num)
if len(num_str) < 2:
    second_last_digit=-1
else :
    second_last_digit=int(num_str[-2])
print(second_last_digit)
```

	Input	Expected	Got	
✓	197	9	9	✓
✓	-197	9	9	✓
✓	5	-1	-1	✓
✓	123456	5	5	✓
✓	8	-1	-1	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 6

Correct

Mark 1.00 out of 1.00

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.

• 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 %)

```
year=int(input())
if year%400==0:
    print(f"{year} is a leap year.")
elif year%100==0:
    print(f"{year} is not a leap year.")
elif year%4==0:
    print(f"{year} is a leap year.")
else:
    print(f"{year} is a not a leap year.")
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 7

Correct

Mark 1.00 out of 1.00

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 %)

```
month=input().capitalize()
if month=="January" or month=="March" or month
    days="31"
    print(f"{month} has {days} days in it.")
elif month=="April" or month=="June" or month=
    days="30"
    print(f"{month} has {days} days in it.")
elif month=="February":
    days="28 or 29"
    print(f"{month} has {days} days in it.")


```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 8

Correct

Mark 1.00 out of 1.00

Three 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

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*a+b*b==c*c or a*a+c*c==b*b or b*b+c*c==a*a
    print("yes")
else :
    print("no")
```

	Input	Expected	Got	
✓	3 5 4	yes	yes	✓
✓	5 8 2	no	no	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 9

Correct

Mark 1.00 out of 1.00

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
60 60 60	That's a equilateral triangle
40 40 80	That's a isosceles triangle

Answer: (penalty regime: 0 %)

```
s1=int(input())
s2=int(input())
s3=int(input())
if s1==s2==s3:
    print("That's a equilateral triangle")
elif s1==s2 or s1==s3 or s2==s3:
    print("That's a isosceles triangle")
else :
    print("That's a scalene triangle")

```

	Input	Expected	Got	
✓	60 60 60	That's a equilateral triangle	That's a equilateral triangle	✓
✓	40 40 80	That's a isosceles triangle	That's a isosceles triangle	✓
✓	50 60 70	That's a scalene triangle	That's a scalene triangle	✓
✓	50 50 80	That's a isosceles triangle	That's a isosceles triangle	✓
✓	10 10 10	That's a equilateral triangle	That's a equilateral triangle	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 10

Correct

Mark 1.00 out of 1.00

IN / OUT

Ms. Sita, 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 atleast 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 %)

```
num1=int(input())
num2=int(input())
if num2>=num1/2:
    print("IN")
else :
    print("OUT")
```

	Input	Expected	Got	
✓	8 3	OUT	OUT	✓
✓	8 5	IN	IN	✓
✓	20 9	OUT	OUT	✓
✓	50 31	IN	IN	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

◄ Week3_mcq

Jump to...

Iteration control structures ►

Started on	Wednesday, 10 April 2024, 9:08 PM
State	Finished
Completed on	Wednesday, 10 April 2024, 10:35 PM
Time taken	1 hour 26 mins
Marks	10.00/10.00
Grade	100.00 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

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 %)

```
N=int(input())
udc=0
for dtc in range(10):
    hasdigit=False
    temp=N
    while temp>0:
        if temp % 10 == dtc:
            hasdigit = True
            break
        temp //= 10
    if hasdigit:
        udc += 1
print(udc)
```

	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 2

Correct

Mark 1.00 out of 1.00

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())
is_prime=True
if N % 2==0 and N > 2:
    is_prime = False
else:
    for i in range(3,int(N**0.5)+1,2):
        if N % i == 0:
            is_prime=False
            break

print(2 if is_prime else 1)
```

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

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 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())
nrc=0
do=[0]*10
temp=n
while temp > 0:
    digit=temp%10
    do[digit] += 1
    temp //= 10
temp=n
while temp > 0:
    digit=temp%10
    if do[digit]==1:
        do[digit]=-1
        nrc+=1
    temp //=10
print(nrc)
```

	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 4

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

Answer: (penalty regime: 0 %)

```
num=int(input())
nxtps=0
candidate = 0
while nxtps <= num:
    candidate += 1
    nxtps = candidate*candidate
print(nxtps)
```

	Input	Expected	Got	
✓	10	16	16	✓

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 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 %)

```
n=int(input())
current=1
sumseries=0
for _ in range(n):
    sumseries += current
    current = current*10+1
print(sumseries)
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 6

Correct

Mark 1.00 out of 1.00

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 %)

```
N=int(input())
num=N
if num < 10 :
    print("Yes")
else:
    while num%2 == 0:
        num //= 2
    while num%3 == 0:
        num //= 3
    while num%5 == 0:
        num //= 5
    while num%7 == 0:
        num //= 7
    if num == 1:
        print("Yes")
    else:
        print("No")
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 7

Correct

Mark 1.00 out of 1.00

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 %)

```
N=int(input())
N+=1
square_root = 0
while square_root * square_root < N:
    square_root += 1
if square_root*square_root == N:
    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 8

Correct

Mark 1.00 out of 1.00

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 %)

```
N=int(input())
a,b = 0,1
if N == 1:
    nth = a
elif N==2:
    nth = b
else:
    for _ in range(2,N):
        nth=a+b
        a,b=b,nth
print(nth)
```

	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 9

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 %)

```
num=int(input())
n=num
numd=0
while n>0:
    n //= 10
    numd += 1
sop = 0
n=num
while n>0:
    digit=n%10
    sop += digit**numd
    numd-= 1
    n//=10
if sop== 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 10

Correct

Mark 1.00 out of 1.00

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 %)

```
N=int(input())
factorial = 1
for i in range(1, N+1):
    factorial *= i
print(factorial)
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Started on	Thursday, 2 May 2024, 10:48 AM
State	Finished
Completed on	Monday, 6 May 2024, 1:17 PM
Time taken	4 days 2 hours
Overdue	2 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

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()
s2=input()
n=int(input())
uniq = ""
found = ""
for char in s1:
    if char in s2 and char not in found:
        uniq += char
        found += char
        if len(uniq) == n:
            break
print(uniq)
```

	Input	Expected	Got	
✓	abcbde cdefghbb 3	bcd	bcd	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 2

Correct

Mark 1.00 out of 1.00

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 %)

```
b=''
try:
    while True:
        a=input()
        if a not in b:
            print(a)
            b+=a
except:
    pass
```

	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 3

Correct

Mark 1.00 out of 1.00

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

For example:

Input	Result
arvijayakumar@rajalakshmi.edu.in	edu.in rajalakshmi arvijayakumar

Answer: (penalty regime: 0 %)

```
S=input()
user,domain_ext = S.split('@')
domain,extension=domain_ext.split('.', 1)
print(extension)
print(domain)
print(user)
```

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

	Input	Expected	Got	
✓	arvijayakumar@rajalakshmi.edu.in	edu.in rajalakshmi arvijayakumar	edu.in rajalakshmi arvijayakumar	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 4

Correct

Mark 1.00 out of 1.00

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()
letters = [c for c in s if c.isalpha()]
letters.reverse()
it=iter(letters)
result=''.join(next(it) if c.isalpha() else c f
print(result)
```

	Input	Expected	Got	
✓	A&B	B&A	B&A	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 5

Correct

Mark 1.00 out of 1.00

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()
result=""
for char in s1:
    if char not in  s2:
        result += char
print(result)

```

	Input	Expected	Got	
✓	experience enc	xpri	xpri	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 6

Correct

Mark 1.00 out of 1.00

Assume that the given string has enough memory.

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

Sample Input 1

a2b4c6

Sample Output 1

aabbbbccccccc

Answer: (penalty regime: 0 %)

```
inp=input()
out=''
i=0
while i < len(inp):
    char  = inp[i]
    i+=1
    num=0
    while i< len(inp) and inp[i].isdigit():
        num=num*10 + int(inp[i])
        i += 1
    out += char*num
print(out)
```

	Input	Expected	Got	
✓	a2b4c6	aabbbbccccccc	aabbbbccccccc	✓
✓	a12b3d4	aaaaaaaaaaaabbbdddd	aaaaaaaaaaaabbbdddd	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 7

Correct

Mark 1.00 out of 1.00

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()
words=sentence.split()
if len(words )<2:
    result="LESS"
else:
    result=words[1].upper()
print(result)
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 8

Correct

Mark 1.00 out of 1.00

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 %)

```
text=input().lower()
words=text.split()
non_pal=[]
for word in words:
   if word != word[::-1]:
       non_pal.append(word)
print(" ".join(non_pal))
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 9

Correct

Mark 1.00 out of 1.00

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 %)

```
string=input()
letters=0
digit=0
special=0
for char in string:
    if char.isdigit():
        digit+=1
    elif char.isalpha():
        letters+=1
    else:
        special+=1
print(letters)
print(digit)
print(special)
```

	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 10

Correct

Mark 1.00 out of 1.00

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()
is_balanced=True
for char in s1:
    if char not in s2:
        is_balanced = False
        break
print("True" if is_balanced else "False")
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

◄ Week5_MCQ

Jump to...

List ►

Started on	Saturday, 18 May 2024, 4:07 PM
State	Finished
Completed on	Monday, 20 May 2024, 4:07 PM
Time taken	2 days
Marks	10.00/10.00
Grade	100.00 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

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

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

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

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

The second line contains an integer p, 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 $p = 3^{rd}$ 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

Answer: (penalty regime: 0 %)

```
def factor(n):
    factors=[]
    for i in range(1,int(n ** 0.5)+1):
        if n%i == 0:
            factors.append(i)
            if n//i != i:
                factors.append(n//i)
    return sorted(factors)
def find_p(n, p):
    factors=factor(n)
    if p<=len(factors):
        return factors[p - 1]
    else:
        return 0
n=int(input())
p=int(input())
print(find_p(n, p))
```

	Input	*Expected*	*Got*	
✓	10 3	5	5	✓
✓	10 5	0	0	✓
✓	1 1	1	1	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 2

Correct

Mark 1.00 out of 1.00

Program to print all the distinct elements in an array. Distinct elements are nothing but the unique (non-duplicate) elements present in the given array.

Input Format:

First line take an Integer input from stdin which is array length n.

Second line take n Integers which is inputs of array.

Output Format:

Print the Distinct Elements in Array in single line which is space Separated

Example Input:

5

1

2

2

3

4

Output:

1 2 3 4

Example Input:

6

1

1

2

2

3

3

Output:

1 2 3

For example:

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

Answer: (penalty regime: 0 %)

```
n=int(input())
a=list(set([int(input()) for i in range(n)]))
for i in a:
    print(i,end=' ')
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 3

Correct

Mark 1.00 out of 1.00

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 %)

```
n=int(input())
arr=[int(input()) for _ in range(n)]
frequency={}
for num in arr:
    if num in frequency:
        frequency[num]+=1
    else:
        frequency[num]=1
for num, freq in frequency.items():
        print(f"{num} occurs {freq} times")
```

	Input	Expected	Got	
✓	7 23 45 23 56 45 23 40	23 occurs 3 times 45 occurs 2 times 56 occurs 1 times 40 occurs 1 times	23 occurs 3 times 45 occurs 2 times 56 occurs 1 times 40 occurs 1 times	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 4

Correct

Mark 1.00 out of 1.00

Write a Python program to Zip two given lists of lists.

Input:

m : row size

n: column size

list1 and list 2 : Two lists

Output

Zipped List : List which combined both list1 and list2

Sample test case

Sample input

2

2

1

3

5

7

2

4

6

8

Sample Output

[[1. 3. 2. 4]. [5. 7. 6. 8]]

Answer: (penalty regime: 0 %)

```
m=int(input())
n=int(input())
list1=[]
for _ in range(m):
    row=[int(input()) for _ in range(n)]
    list1.append(row)
list2=[]
for _ in range(n):
    row=[int(input()) for _ in range(m)]
    list2.append(row)
zipped_list=[]
for i in range(m):
    combined_row=list1[i]+list2[i]
    zipped_list.append(combined_row)
print(zipped_list)
```

	Input	Expected	Got	
✓	2 2 1 2 3 4 5 6 7 8	`[[1, 2, 5, 6], [3, 4, 7, 8]]`	`[[1, 2, 5, 6], [3, 4, 7, 8]]`	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 5

Correct

Mark 1.00 out of 1.00

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 list is strictly increasing or decreasing else print "False"

Sample Test Case

Input

7

1

2

3

0

4

5

6

Output

True

Answer: (penalty regime: 0 %)

```
n=int(input())
arr=[int(input()) for x in range(n)]
def is_sird(lst):
    i=all(lst[i]<lst[i+1] for i in range(len(l
    d=all(lst[i]>lst[i+1] for i in range(len(l
    return i or d
if is_sird(arr):
    print("True")
else:
    for i in range(len(arr)):
        temp=arr[:i]+arr[i+1:]
        if is_sird(temp):
            print("True")
            break
    else:
            print("False")
```

	Input	Expected	Got	
✓	7 1 2 3 0 4 5 6	True	True	✓

	Input	Expected	Got	
✓	4 2 1 0 -1	True	True	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 6

Correct

Mark 1.00 out of 1.00

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. First line is number of test cases T. Following T lines contain:

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 op(arr, k):
    i,j=0,-1
    while i<len(arr) and j<len(arr):
       if i!=j and arr[j]-arr[i]==k:
          return 1
       elif arr[j]-arr[i]<k:
```

```
            j+=1
        else:
            i+=1
    else:
        return 0
t=int(input())
for x in range(t):
    n=int(input())
    arr=list(set([int(input()) for i in range(
    k=int(input())
    print(op(arr,k))
```

	Input	Expected	Got	
✓	1 3 1 3 5 4	1	1	✓
✓	1 3 1 3 5 99	0	0	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 7

Correct

Mark 1.00 out of 1.00

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

6

9

4

2

4

5

10

Sample Output 1

1 2 3 4 5 6 9 10

Answer: (penalty regime: 0 %)

```
s1=int(input())
a1=list(set([int(input()) for i in range(s1)]))
s2=int(input())
a2=list(set([int(input()) for i in range(s2)]))
a=a1+a2
a=list(set(a))
a.sort()
for i in a:
    print(i,end=' ')
```

	Input	Expected	Got	
✓	5 1 2 3 6 9 4 2 4 5 10	1 2 3 4 5 6 9 10	1 2 3 4 5 6 9 10	✓
✓	7 4 7 8 10 12 30 35 9 1 3 4 5 7 8 11 13 22	1 3 4 5 7 8 10 11 12 13 22 30 35	1 3 4 5 7 8 10 11 12 13 22 30 35	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 8

Correct

Mark 1.00 out of 1.00

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

4
5
6
5
7
5

Output

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

Test Case 2

Input

5
67
80
45
97
100
50

Output

50 is not present in the array.

Answer: (penalty regime: 0 %)

```
n=int(input())
arr=[int(input()) for x in range(n)]
s=int(input())
l=[i+1 for i in range(n) if arr[i]==s]
c=len(l)
if c>0:
    for j in l:
        print(f"{s} is present at location {j}
    print(f"{s} is present {c} times in the ar
else:
    print(f"{s} is not present in the array.")
```

	Input	Expected	Got	
✓	4 5 6 5 7 5	5 is present at location 1. 5 is present at location 3. 5 is present 2 times in the array.	5 is present at location 1. 5 is present at location 3. 5 is present 2 times in the array.	✓
✓	5 67 80 45 97 100 50	50 is not present in the array.	50 is not present in the array.	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 9

Correct

Mark 1.00 out of 1.00

Consider a program to insert an element / item in the sorted array. Complete the logic by filling up required code in editable section. Consider an array of size 10. The eleventh item is the data is to be inserted.

Sample Test Cases

Test Case 1

Input

1
3
4
5
6
7
8
9
10
11
2

Output

ITEM to be inserted:2
After insertion array is:
1
2
3
4
5
6
7
8
9
10
11

Test Case 2

Input

11
22
33
55
66
77
88
99
110
120
44

Output

ITEM to be inserted:44
After insertion array is:
11
22
33
44
55
66
77
88
99
110
120

Answer: (penalty regime: 0 %)

```
a=list(set([int(input()) for x in range(10)]))
```

```
a=list(set([int(input()) for x in range(10)]))
I=int(input())
print("ITEM to be inserted:{}".format(I))
a.append(I)
a.sort()
print("After insertion array is:")
for z in a:
    print(z)
```

	Input	*Expected*	*Got*	
✓	1 3 4 5 6 7 8 9 10 11 2	ITEM to be inserted:2 After insertion array is: 1 2 3 4 5 6 7 8 9 10 11	ITEM to be inserted:2 After insertion array is: 1 2 3 4 5 6 7 8 9 10 11	✓
✓	11 22 33 55 66 77 88 99 110 120 44	ITEM to be inserted:44 After insertion array is: 11 22 33 44 55 66 77 88 99 110 120	ITEM to be inserted:44 After insertion array is: 11 22 33 44 55 66 77 88 99 110 120	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 10

Correct

Mark 1.00 out of 1.00

Given an array of numbers, find the index of the smallest array element (the pivot), for which the sums of all elements to the left and to the right are equal. The array may not be reordered.

Example

arr=[1, 2, 3, 4, 6]

- the sum of the first three elements, 1+2+3=6. The value of the last element is 6.
- Using zero based indexing, arr[3]=4 is the pivot between the two subarrays.
- The index of the pivot is 3.

Constraints

- $3 \leq n \leq 10^5$
- $1 \leq arr[i] \leq 2 \times 10^4$, where $0 \leq i < n$
- 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 $0 \leq i < n$.

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 %)

```
n=int(input())
arr=[]
for _ in range(n):
    arr.append(int(input()))
total_sum=sum(arr)
left_sum=0
pivot_index=-1
for i in range(n):
    right_sum=total_sum - left_sum - arr[i]
    if left_sum == right_sum:
        pivot_index=i
        break
    left_sum += arr[i]
print(pivot_index)
```

	Input	Expected	Got	
✓	4 1 2 3 3	2	2	✓
✓	3 1 2 1	1	1	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

◄ Week6_MCQ

Jump to...

Tuples ►

Started on	Wednesday, 29 May 2024, 5:49 PM
State	Finished
Completed on	Wednesday, 29 May 2024, 9:26 PM
Time taken	3 hours 37 mins
Marks	5.00/5.00
Grade	100.00 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

Given a tuple and a positive integer k, the task is to find the count of distinct pairs in the tuple whose sum is equal to K.

Examples:

Input: t = (5, 6, 5, 7, 7, 8), K = 13
Output: 2
Explanation:
Pairs with sum K(= 13) are {(5, 8), (6, 7), (6, 7)}.
Therefore, distinct pairs with sum K(= 13) are { (5, 8), (6, 7) }.
Therefore, the required output is 2.

For example:

Input	Result
1,2,1,2,5 3	1
1,2 0	0

Answer: (penalty regime: 0 %)

```
t=tuple(map(int,input().split(',')))
k=int(input())
pair_counts={}
for i in range(len(t)):
    for j in range(i+1,len(t)):
        pair_sum=t[i]+t[j]
        if pair_sum==k:
            pair_counts[(min(t[i],t[j],max(t[i
distinct_pairs_count=len(pair_counts)
print(distinct_pairs_count)
```

	Input	Expected	Got	
✓	5,6,5,7,7,8 13	2	2	✓
✓	1,2,1,2,5 3	1	1	✓
✓	1,2 0	0	0	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 2

Correct

Mark 1.00 out of 1.00

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
5 5 1 2 3 4 5 1 2 3 4 5	NO SUCH ELEMENTS

Answer: (penalty regime: 0 %)

```
arr1_size,a2_size=map(int,input().split())
arr1=list(map(int,input().split()))
arr2=list(map(int,input().split()))
set1=set(arr1)
set2=set(arr2)
A=set1.symmetric_difference(set2)
if A:
    print(*A)
    print(len(A))
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	✓
✓	5 5 1 2 3 4 5 1 2 3 4 5	NO SUCH ELEMENTS	NO SUCH ELEMENTS	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 3

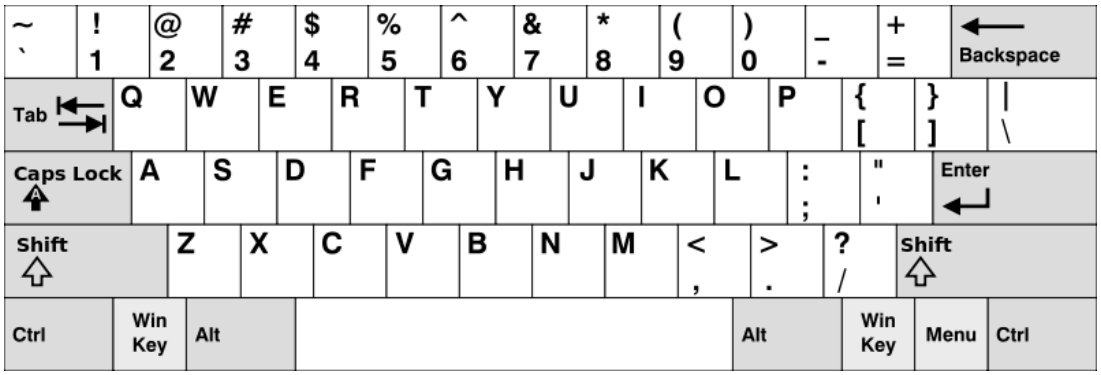
Correct

Mark 1.00 out of 1.00

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 %)

```
n=int(input())
count=0
true=0
str1="QWERTYUIOPqwertyuiop"
str2="ASDFGHJKLasdfghjkl"
str3="ZXCVBNMzxcvbnm"
for i in range(n):
    str4=input()
    c,c1,c2=0,0,0
    for i in str4:
        if i in str1:
            c+=1
        elif i in str2:
            c1+=1
```

```
            c2+=1
        elif i in str3:
            c2+=1
    if c==len(str4) or c1==len(str4) or c2==le
        true=1
        print(str4)
if true != 1:
    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

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_dup(nums):
    seen=set()
    for num in nums:
        if num in seen:
            return num
        seen.add(num)
    return -1
nums=list(map(int,input().split()))
print(find_dup(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 5

Correct

Mark 1.00 out of 1.00

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 %)

```
text=input()
brLet=input().strip()
words=text.split()
brset=set(brLet)
count=0
for word in words:
    if all(char.lower() not in brset for char i
        count+=1
print(count)
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

◄ Week7_MCQ

Jump to. . .

Dictionary ►

Started on	Wednesday, 29 May 2024, 9:29 PM
State	Finished
Completed on	Wednesday, 29 May 2024, 10:26 PM
Time taken	56 mins 39 secs
Marks	5.00/5.00
Grade	100.00 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

A sentence is a string of single-space separated words where each word consists only of lowercase letters. A word is uncommon if it appears exactly once in one of the sentences, and does not appear in the other sentence.

Given two sentences s1 and s2, return a list of all the uncommon words. You may return the answer in any order.

Example 1:

Input: s1 = "this apple is sweet", s2 = "this apple is sour"

Output: ["sweet","sour"]

Example 2:

Input: s1 = "apple apple", s2 = "banana"

Output: ["banana"]

Constraints:

1 <= s1.length, s2.length <= 200

s1 and s2 consist of lowercase English letters and spaces.

s1 and s2 do not have leading or trailing spaces.

All the words in s1 and s2 are separated by a single space.

Note:

Use dictionary to solve the problem

For example:

Input	Result
this apple is sweet this apple is sour	sweet sour

Answer: (penalty regime: 0 %)

```
s1=input().split()
s2=input().split()
s1.extend(s2)
c=[]
a=[]
for i in s1:
    if(s1.count(i)==1):
        print(i,end=' ')
```

	Input	Expected	Got	
✓	this apple is sweet this apple is sour	sweet sour	sweet sour	✓

	Input	Expected	Got	
✓	apple apple banana	banana	banana	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 2

Correct

Mark 1.00 out of 1.00

Give a dictionary with value lists, sort the keys by summation of values in value list.

Input : test_dict = {'Gfg' : [6, 7, 4], 'best' : [7, 6, 5]}

Output : {'Gfg' : 17, 'best' : 18}

Explanation : Sorted by sum, and replaced.

Input : test_dict = {'Gfg' : [8, 8], 'best' : [5, 5]}

Output : {'best' : 10, 'Gfg' : 16}

Explanation : Sorted by sum, and replaced.

Sample Input:

2

Gfg 6 7 4

Best 7 6 5

Sample Output

Gfg 17

Best 18

For example:

Input	Result
2 Gfg 6 7 4 Best 7 6 5	Gfg 17 Best 18

Answer: (penalty regime: 0 %)

```
n = int(input())
test_dict = {}

for _ in range(n):
    x = input().split()
    key = x[0]
    values = list(map(int, x[1:]))
    test_dict[key] = sum(values)

sorted_keys = sorted(test_dict, key=test_dict.

for key in sorted_keys:
    print(key, test_dict[key])

```

	Input	Expected	Got	
✓	2 Gfg 6 7 4 Best 7 6 5	Gfg 17 Best 18	Gfg 17 Best 18	✓

	Input	Expected	Got	
✓	2 Gfg 6 6 Best 5 5	Best 10 Gfg 12	Best 10 Gfg 12	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 3

Correct

Mark 1.00 out of 1.00

Given an array of names of candidates in an election. A candidate name in the array represents a vote cast to the candidate. Print the name of candidates received Max vote. If there is tie, print a lexicographically smaller name.

Examples:

Input : votes[] = {"john", "johnny", "jackie",
"johnny", "john", "jackie",
"jamie", "jamie", "john",
"johnny", "jamie", "johnny",
"john"};

Output : John

We have four Candidates with name as 'John', 'Johnny', 'jamie', 'jackie'. The candidates John and Johny get maximum votes. Since John is alphabetically smaller, we print it. Use dictionary to solve the above problem

Sample Input:

10

John

John

Johny

Jamie

Jamie

Johny

Jack

Johny

Johny

Jackie

Sample Output:

Johny

Answer: (penalty regime: 0 %)

```
n = int(input().strip())

vote_count = {}

for _ in range(n):
    candidate = input().strip()
    if candidate in vote_count:
        vote_count[candidate] += 1
```

```
    else:
        vote_count[candidate] = 1

max_votes = 0
winner = ""

for candidate, votes in vote_count.items():
    if votes > max_votes or (votes == max_vote
        max_votes = votes
        winner = candidate

print(winner)

```

	Input	Expected	Got	
✓	10 John John Johny Jamie Jamie Johny Jack Johny Johny Jackie	Johny	Johny	✓
✓	6 Ida Ida Ida Kiruba Kiruba Kiruba	Ida	Ida	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 4

Correct

Mark 1.00 out of 1.00

In the game of Scrabble™, each letter has points associated with it. The total score of a word is the sum of the scores of its letters. More common letters are worth fewer points while less common letters are worth more points. The points associated with each letter are shown below:

Points Letters

1 A, E, I, L, N, O, R, S, T and U

2 D and G

3 B, C, M and P

4 F, H, V, W and Y

5 K

8 J and X

10 Q and Z

Write a program that computes and displays the Scrabble™ score for a word. Create a dictionary that maps from letters to point values. Then use the dictionary to compute the score.

A Scrabble™ board includes some squares that multiply the value of a letter or the value of an entire word. We will ignore these squares in this exercise.

Sample Input

REC

Sample Output

REC is worth 5 points.

For example:

Input	Result
REC	REC is worth 5 points.

Answer: (penalty regime: 0 %)

```
def scrabble_score(word):

    letter_points = {
        'A': 1, 'E': 1, 'I': 1, 'L': 1, 'N': 1
        'D': 2, 'G': 2,
        'B': 3, 'C': 3, 'M': 3, 'P': 3,
        'F': 4, 'H': 4, 'V': 4, 'W': 4, 'Y': 4
        'K': 5,
        'J': 8, 'X': 8,
        'Q': 10, 'Z': 10
    }

    score = sum(letter_points.get(letter.upper

    return score


word = input()
score = scrabble_score(word)
print(f"{word} is worth {score} points.")
```

	Input	Expected	Got	
✓	GOD	GOD is worth 5 points.	GOD is worth 5 points.	✓
✓	REC	REC is worth 5 points.	REC is worth 5 points.	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 5

Correct

Mark 1.00 out of 1.00

Create a student dictionary for n students with the student name as key and their test mark assignment mark and lab mark as values. Do the following computations and display the result.

1. Identify the student with the highest average score

2. Identify the student who as the highest Assignment marks

3. Identify the student with the Lowest lab marks

4. Identify the student with the lowest average score

Note:

If more than one student has the same score display all the student names

Sample input:

4

James 67 89 56

Lalith 89 45 45

Ram 89 89 89

Sita 70 70 70

Sample Output:

Ram

James Ram

Lalith

Lalith

For example:

Input	Result
4 James 67 89 56 Lalith 89 45 45 Ram 89 89 89 Sita 70 70 70	Ram James Ram Lalith Lalith

Answer: (penalty regime: 0 %)

```
n = int(input())
d = {}
sc = []
am = []
lm = []
for i in range(n):
    x = input().split()
    d[x[0]] = [int(x[1]),int(x[2]),int(x[3])]
    sc.append(sum(d[x[0]])//3)
    am.append(int(x[2]))
    lm.append(int(x[3]))
a1 = []
a2 = []
a3 = []
a4 = []
k = list(d.keys())
for i in range(len(k)):
    if(sc[i] == max(sc)):
```

```
        a1.append(k[i])

for i in range(len(k)):
    if(am[i] == max(am)):
        a2.append(k[i])

for i in range(len(k)):
    if(lm[i] == min(lm)):
        a3.append(k[i])
for i in range(len(k)):
    if(sc[i] == min(sc)):
        a4.append(k[i])
a1.sort()
a2.sort()
a3.sort()
a4.sort()
for i in a1:
    print(i,end = " ")
print(" ")
for i in a2:
    print(i,end = " ")
print(" ")
for i in a3:
    print(i,end = " ")
print(" ")
for i in a4:
    print(i,end = " ")
print(" ")


```

	Input	*Expected*	*Got*	
✓	4 James 67 89 56 Lalith 89 45 45 Ram 89 89 89 Sita 70 70 70	Ram James Ram Lalith Lalith	Ram James Ram Lalith Lalith	✓
✓	3 Raja 95 67 90 Aarav 89 90 90 Shadhana 95 95 91	Shadhana Shadhana Aarav Raja Raja	Shadhana Shadhana Aarav Raja Raja	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

◄ *Week8_MCQ*

Jump to...

Functions ►

Started on	Tuesday, 28 May 2024, 10:10 PM
State	Finished
Completed on	Wednesday, 29 May 2024, 7:32 PM
Time taken	21 hours 22 mins
Marks	5.00/5.00
Grade	100.00 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

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):
    s=0
    for i in range (1,n):
        if (n%i==0):
            s+=i
    if (s>n):
        return("Yes")
    else:
        return("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 2

Correct

Mark 1.00 out of 1.00

An e-commerce company plans to give their customers a special discount for Christmas.

They are planning to offer a flat discount. The discount value is calculated as the sum of all the prime digits in the total bill amount.

Write an algorithm to find the discount value for the given total bill amount.

Constraints

1 <= orderValue< 10e100000

Input

The input consists of an integer orderValue, representing the total bill amount.

Output

Print an integer representing the discount value for the given total bill amount.

Example Input

578

Output

12

For example:

Test	Result
print(christmasDiscount(578))	12

Answer: (penalty regime: 0 %)

Reset answer

```
def christmasDiscount(n):
    s=0
    a=str(n)
    for i in a:
        if i in ('2357'):
            s+=int(i)
    return(s)
```

	Test	Expected	Got	
✓	print(christmasDiscount(578))	12	12	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 3

Correct

Mark 1.00 out of 1.00

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):
    def is_ugly(num):
        if n<=0:
             return "False"
        while num%2==0:
            num//=2
        while num%3==0:
            num//=3
        while num%5==0:
            num//=5
        return num==1
    if is_ugly(n):
        return 'ugly'
    else:
        return '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.

Question 4

Correct

Mark 1.00 out of 1.00

Given a number with maximum of 100 digits as input, find the difference between the sum of odd and even position digits.

Input Format:

Take a number in the form of String from stdin.

Output Format:

Print the difference between sum of even and odd digits

Example input:

1453

Output:

1

Explanation:

Here, sum of even digits is 4 + 3 = 7

sum of odd digits is 1 + 5 = 6.

Difference is 1.

Note that we are always taking absolute difference

Answer: (penalty regime: 0 %)

Reset answer

```
def differenceSum(n):
    s=str(n)
    c=len(s)
    e=0
    o=0
    for i in range(c):
        if ((i+1)%2==0):
            o+=int(s[i])
        else:
            e+=int(s[i])
        return(e-o)
```

	Test	Expected	Got	
✓	print(differenceSum(1453))	1	1	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 5

Correct

Mark 1.00 out of 1.00

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):
    c=0
    c+=n//4
    n%=4
    c+=n//3
    n%=3
    c+=n//2
    n%=2
    c+=n//1
    return c
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

◄ Week9_MCQ

Jump to. . .

Searching ►

Started on	Sunday, 26 May 2024, 3:14 AM
State	Finished
Completed on	Wednesday, 29 May 2024, 5:44 PM
Time taken	3 days 14 hours
Marks	5.00/5.00
Grade	100.00 out of 100.00

Question 1

Correct

Mark 1.00 out of 1.00

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 %)

```
arr=list(map(int,input().split()))
def count_freq(arr):
    freq_dict={}
    for num in arr:
        freq_dict[num]=freq_dict.get(num,0)+1
    return freq_dict
freq_dict = count_freq(arr)
sorted_freq=sorted(freq_dict.items())
for num,freq in sorted_freq:
    print(num,freq)

```

	Input	Expected	Got	
✓	4 3 5 3 4 5	3 2 4 2 5 2	3 2 4 2 5 2	✓
✓	12 4 4 4 2 3 5	2 1 3 1 4 3 5 1 12 1	2 1 3 1 4 3 5 1 12 1	✓

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 2

Correct

Mark 1.00 out of 1.00

An list contains N numbers and you want to determine whether two of the numbers sum to a given number K. For example, if the input is 8, 4, 1, 6 and K is 10, the answer is yes (4 and 6). A number may be used twice.

Input Format

The first line contains a single integer n , the length of list

The second line contains n space-separated integers, list[i].

The third line contains integer k.

Output Format

Print Yes or No.

Sample Input

7

0 1 2 4 6 5 3

1

Sample Output

Yes

For example:

Input	Result
5 8 9 12 15 3 11	Yes
6 2 9 21 32 43 43 1 4	No

Answer: (penalty regime: 0 %)

```
n=int(input())
nums=list(map(int,input().split()))
k=int(input())
def has_sum_to_k(n,nums,k):
    num_set = set()
    for num in nums:
        if k - num in num_set:
            return "Yes"
        num_set.add(num)
    return "No"
print(has_sum_to_k(n,nums,k))
```

	Input	Expected	Got	
✓	5 8 9 12 15 3 11	Yes	Yes	✓
✓	6 2 9 21 32 43 43 1 4	No	No	✓
✓	6 13 42 31 4 8 9 17	Yes	Yes	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 3

Correct

Mark 1.00 out of 1.00

Given an list, find peak element in it. A peak element is an element that is greater than its neighbors.

An element a[i] is a peak element if

A[i-1] <= A[i] >=a[i+1] for middle elements. [0<i<n-1]

A[i-1] <= A[i] for last element [i=n-1]

A[i]>=A[i+1] for first element [i=0]

Input Format

The first line contains a single integer n , the length of A .
The second line contains n space-separated integers, A[i].

Output Format

Print peak numbers separated by space.

Sample Input

5

8 9 10 2 6

Sample Output

```
10 6
```

For example:

Input	Result
4 12 3 6 8	12 8

Answer: (penalty regime: 0 %)

```
n=int(input())
arr=list(map(int,input().split()))
def find_elements(arr):
    n=len(arr)
    peaks=[]
    for i in range(n):
      if (i == 0 and arr[i] >= arr[i+1]) or (i
          peaks.append(arr[i])
    return peaks
peak_elements=find_elements(arr)
print(" ".join(map(str,peak_elements)))
```

	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 4

Correct

Mark 1.00 out of 1.00

Given an listof integers, sort the array in ascending order using the Bubble Sort algorithm above. Once sorted, print the following three lines:

1. List is sorted in numSwaps swaps., where numSwaps is the number of swaps that took place.
2. First Element: firstElement, the first element in the sorted list.
3. Last Element: lastElement, the last element in the sorted list.

For example, given a worst-case but small array to sort: a=[6,4,1]. It took 3 swaps to sort the array. Output would be

```
Array is sorted in 3 swaps.
```

```
First Element: 1
```

```
Last Element: 6
```

Input Format

The first line contains an integer, n , the size of the list a .
The second line contains n, space-separated integers a[i].

Constraints

- 2<=n<=600
- 1<=a[i]<=$2x10^6$.

Output Format

You must print the following three lines of output:

1. List is sorted in numSwaps swaps., where numSwaps is the number of swaps that took place.
2. First Element: firstElement, the first element in the sorted list.
3. Last Element: lastElement, the last element in the sorted list.

Sample Input 0

3

1 2 3

Sample Output 0

List is sorted in 0 swaps.

First Element: 1

Last Element: 3

For example:

Input	Result
3 3 2 1	List is sorted in 3 swaps. First Element: 1 Last Element: 3
5 1 9 2 8 4	List is sorted in 4 swaps. First Element: 1 Last Element: 9

Answer: (penalty regime: 0 %)

```
1
2  def bubble_sort(arr):
3      n=len(arr)
4      num_swaps=0
5      for i in range(n):
6          for j in range(n-1):
7              if arr[j] > arr[j+1]:
8                  arr[j],arr[j+1]=arr[j+1],arr[j
9                  num_swaps += 1
10     print(f"List is sorted in {num_swaps} swap
11     print("First Element:",arr[0])
```

```
    print("Last Element:",arr[-1])
n=int(input())
a=list(map(int,input().split()))
bubble_sort(a)
```

	Input	Expected	Got	
✓	3 3 2 1	List is sorted in 3 swaps. First Element: 1 Last Element: 3	List is sorted in 3 swaps. First Element: 1 Last Element: 3	✓
✓	5 1 9 2 8 4	List is sorted in 4 swaps. First Element: 1 Last Element: 9	List is sorted in 4 swaps. First Element: 1 Last Element: 9	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

Question 5

Correct

Mark 1.00 out of 1.00

Bubble Sort is the simplest sorting algorithm that works by repeatedly swapping the adjacent elements if they are in wrong order. You read an list of numbers. You need to arrange the elements in ascending order and print the result. The sorting should be done using bubble sort.

Input Format: The first line reads the number of elements in the array. The second line reads the array elements one by one.

Output Format: The output should be a sorted list.

For example:

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

Answer: (penalty regime: 0 %)

```
n=int(input())
a=list(map(int,input().split()))
a.sort()
print(' ' .join(map(str,a)))
```

	Input	Expected	Got	
✓	6 3 4 8 7 1 2	1 2 3 4 7 8	1 2 3 4 7 8	✓
✓	6 9 18 1 3 4 6	1 3 4 6 9 18	1 3 4 6 9 18	✓
✓	5 4 5 2 3 1	1 2 3 4 5	1 2 3 4 5	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

◄ Week10_MCQ

Jump to...