

**Question 1**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

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 2**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

What will be the output of the following python Code-

```
mystring="India is my country"
```

```
print(type(mystring))
```

- a. class str
- b. str
- c. <class 'str'> ✓
- d. 'str'

Your answer is correct.

The correct answer is:

<class 'str'>

**Question 3**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

Who developed the Python language?

- a. Bill Gates
- b. Dennis Ritchie
- c. Von Neumann
- d. Guido Van Rossum ✓

Your answer is correct.

The correct answer is:

Guido Van Rossum

**Question 4**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

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

- a. Curly brace
- b. Parenthesis
- c. Indentation ✓
- d. Key

Your answer is correct.

The correct answer is:

Indentation

**Question 5**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

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. int and int
- c. float and str
- d. int and str ✓

Your answer is correct.

The correct answer is:

int and str

**Question 6**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

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

- a. print() ✓
- b. val()
- c. scanf()
- d. printf()

Your answer is correct.

The correct answer is:

print()

Question 7

Correct

Mark 1.00 out of  
1.00

 Flag question

Which of the following declarations is incorrect in python language?

- a. xyzp = 5,000,000
- b. x,y,z,p = 5000, 6000, 7000, 8000 ✓
- c. x y z p = 5000 6000 7000 8000
- d. x\_y\_z\_p = 5,000,000

Your answer is correct.

The correct answer is:

x,y,z,p = 5000, 6000, 7000, 8000

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**Question 8**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

What will be the output of the following code snippet?

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

- a. float ✓
- b. obj
- c. int
- d. str

Your answer is correct.

The correct answer is:

float

**Question 9**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

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. 3 1 ✓  
1 3
- b. No output
- c. 1 3  
3 1
- d. 3 1  
3 1

Your answer is correct.

The correct answer is:

3 1

1 3

**Question 10**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

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

- a. .cpp
- b. .python
- c. .p
- d. .py ✓

**Question 1**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

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,<class 'int'>     |
| 10.9  | 10.9,<class 'float'> |

Answer: (penalty regime: 0 %)

```
1 a=int(input())
2 b=float(input())
3 print(a,",", (type(a)),sep='')
4 print("%.1f"%b,",", (type(b)),sep='')
```

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

Passed all tests! ✓

**Question 2**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

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 %)

```
1 a=int(input())
2 b=(40/100)*a
3 c=(20/100)*a
4 d=b+c+a
5 print(d)
```

|   | Input | Expected | Got     |   |
|---|-------|----------|---------|---|
| ✓ | 10000 | 16000    | 16000.0 | ✓ |
| ✓ | 20000 | 32000    | 32000.0 | ✓ |
| ✓ | 28000 | 44800    | 44800.0 | ✓ |
| ✓ | 5000  | 8000     | 8000.0  | ✓ |

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

**Question 3**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

Write a 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 %)

```
1 a=float(input())
2 b=a**(1/2)
3 print("%.3f"%b)
```

|   | Input | Expected | Got    |   |
|---|-------|----------|--------|---|
| ✓ | 8.00  | 2.828    | 2.828  | ✓ |
| ✓ | 14.00 | 3.742    | 3.742  | ✓ |
| ✓ | 4.00  | 2.000    | 2.000  | ✓ |
| ✓ | 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

Flag question

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 | 30.43 is the gain percent. |
| 500   |                            |
| 60000 |                            |

Answer: (penalty regime: 0 %)

```
1 a=int(input())
2 b=int(input())
3 c=int(input())
4 d=((c-(a+b))/(a+b)*100
5 print("%.2f"%d,"is the gain percent.")
```

|   | Input                  | Expected                   | Got        |
|---|------------------------|----------------------------|------------|
| ✓ | 10000<br>250<br>15000  | 46.34 is the gain percent. | 46.34 is t |
| ✓ | 45500<br>500<br>60000  | 30.43 is the gain percent. | 30.43 is t |
| ✓ | 5000<br>0<br>7000      | 40.00 is the gain percent. | 40.00 is t |
| ✓ | 12500<br>5000<br>18000 | 2.86 is the gain percent.  | 2.86 is th |

Passed all tests! ✓

**Question 5**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

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    | Your total refund will be \$7.00. |
| 20    |                                   |

Answer: (penalty regime: 0 %)

```
1 a=int(input())
2 b=int(input())
3 c=a*0.10
4 d=b*0.25
5 z=c+d
6 print("Your total refund will be ","%.2f."
```

|   | Input      | Expected                           | Got                                |
|---|------------|------------------------------------|------------------------------------|
| ✓ | 20<br>20   | Your total refund will be \$7.00.  | Your total refund will be \$7.00.  |
| ✓ | 11<br>22   | Your total refund will be \$6.60.  | Your total refund will be \$6.60.  |
| ✓ | 123<br>200 | Your total refund will be \$62.30. | Your total refund will be \$62.30. |
| ✓ | 76<br>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

Flag question

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<br>weekend 0.38 |

**Answer:** (penalty regime: 0 %)

```
1 salary=int(input())
2 weekends=abs((salary-500))/130
3 weekdays=weekends+10
4 print("Weekdays {:.2f}".format(weekdays))
5 print("Weekend {:.2f}".format(weekends))
```

|   | Input | Expected                        | Got                             |   |
|---|-------|---------------------------------|---------------------------------|---|
| ✓ | 450   | weekdays 10.38<br>weekend 0.38  | weekdays 10.38<br>weekend 0.38  | ✓ |
| ✓ | 500   | weekdays 10.00<br>weekend 0.00  | weekdays 10.00<br>weekend 0.00  | ✓ |
| ✓ | 10000 | weekdays 83.08<br>weekend 73.08 | weekdays 83.08<br>weekend 73.08 | ✓ |
| ✓ | 6789  | weekdays 58.38<br>weekend 48.38 | weekdays 58.38<br>weekend 48.38 | ✓ |

Passed all tests! ✓

Question 1  
Complete  
 Flag question

What is the order of precedence in python?

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

a. **1,2,3,4,5**

b. **3,1,2,4,5**

c. **1,5,2,4,3**

**3,1,2,4,5**

d. **3.5.1.2.4**

Question 2  
Complete  
 Flag question

What is the two's complement of -44?

- a. 11010100
- b. 11101011
- c. 10110111
- d. 10110011

Question 3  
Complete  
 Flag question

Which of the following is not a valid variable name in Python?

- a. **5var**
- b. **var11**
- c. **var\_name**
- d. **\_var**

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**Question 4**

Complete

 Flag question**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. **True**  
False  
False

- b. **True**  
True  
True

- c. **True**  
False  
True

**Question 5**

Complete

 Flag question**What is the output of the following code**

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

- a. • False True False True

- b. • True True False True

- c. • False True True True

- d. • True True False True

**Question 6**

Complete

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

- a. 50  
 b. 31  
 c. 79  
 d. 7

**Question 7**

Complete

 Flag question

What is the output of the following code

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

- a. 0  
64
- b. 64  
8  
4
- c. 64  
0
- d. 64  
4

**Question 8**

Complete

 Flag question

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. 3
- b. 4
- c. 2
- d. 1

**Question 9**  
Complete Flag questionWhat will be the output of statement `2**2**2**2`

- a. 32768
- b. 65536
- c. 256
- d. 16

**Question 10**  
Complete Flag question

What is the value of the expression

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

- a. 4.0  
4.00
- b. 4  
4
- c. 4.0  
4
- d. 4.0  
4.0

**Question 11**

Complete  
 Flag question

What is the output of the following code

```
x = 4  
y = 10
```

```
print(x % y)
```

- a. 6
- b. 10
- c. 4
- d. 1

**Question 12**

Complete  
 Flag question

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

- `a` and `b` are \_\_\_\_\_
- `a + 6 - c-d` is \_\_\_\_\_

- a. operands, an equation
- b. operators, a statement
- c. terms, a group
- d. operands, an expression

**Question 13**

Complete  
 Flag question

State the output of the following code.

```
num1 = '10'  
num2 = '20'  
sum = num1 + num2  
print(sum)
```

- a. Error
- b. 10
- c. 1020
- d. 30

**Question 14**

Complete

 Flag question

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

**x>>2**

- a. 8
- b. 4
- c. 1
- d. 2

**Question 15**

Complete

 Flag question

**Which of the following statements assigns the value 35 to the variable x in Python:**

- a. `int x = 35`
- b. `x = 35`
- c. `x := 35`
- d. `x ← 35`

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Question 1  
Correct  
Mark 1.00 out of 1.00  
 Flag question

Note:

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

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

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

Input Format:

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

Output Format:

Display True(IF ELIGIBLE)

Display False (if not eligible)

Sample Input

19

45

Sample Output

True

For example:

| Input | Result |
|-------|--------|
| 18    | False  |
| 40    |        |

Answer: (penalty regime: 0 %)

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

|   | Input    | Expected | Got   |   |
|---|----------|----------|-------|---|
| ✓ | 19<br>45 | True     | True  | ✓ |
| ✓ | 18<br>40 | False    | False | ✓ |
| ✓ | 18<br>42 | True     | True  | ✓ |
| ✓ | 16<br>45 | False    | False | ✓ |

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

**Question 2**

Correct

Mark 1.00 out of  
1.00 Flag  
question

Write a 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 %)

```

z=int(input())
y=bin(z)[2:]
count=0
for i in y :
    if(i=='1'):
        count=count+1

print(count)

```

|   | 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 3**

Correct

Mark 1.00 out of  
1.00 Flag  
question

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

Input Given:

N-No of friends

P1,P2,P3 AND P4-No of chocolates

OUTPUT:

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

SAMPLE INPUT AND OUTPUT:

5

25

12

10

9

OUTPUT

True False True False

**For example:**

| Input | Result               |
|-------|----------------------|
| 5     | True False True True |
| 25    |                      |
| 23    |                      |
| 20    |                      |
| 10    |                      |

**Answer:** (penalty regime: 0 %)

```
N=int(input())
p1=int(input())
p2=int(input())
p3=int(input())
p4=int(input())
print(p1%N==0,p2%N==0,p3%N==0,p4%N==0)
```

|   | Input                     | Expected              | Got                   |   |
|---|---------------------------|-----------------------|-----------------------|---|
| ✓ | 5<br>25<br>23<br>20<br>10 | True False True True  | True False True True  | ✓ |
| ✓ | 4<br>23<br>24<br>21<br>12 | False True False True | False True False True | ✓ |
| ✓ | 8<br>64<br>8<br>16<br>32  | True True True True   | True True True True   | ✓ |

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

**Question 4**

Correct

Mark 1.00 out of 1.00

Flag question

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

**For example:**

| Input | Result   |
|-------|--|
| 10000 | Balance as of end of Year 1: \$10400.00.<br>Balance as of end of Year 2: \$10816.00.<br>Balance as of end of Year 3: \$11248.64. |

**Answer:** (penalty regime: 0 %)

```
x=int(input())
intrest=0.04
year1=((0.04*x)+x)
year2=((0.04*year1)+year1)
year3=((0.04*year2)+year2)
print("Balance as of end of Year 1: ${:.2f}.".format(year1))
print("Balance as of end of Year 2: ${:.2f}.".format(year2))
print("Balance as of end of Year 3: ${:.2f}.".format(year3))
```

|   | <b>Input</b> | <b>Expected</b>  | <b>Got</b>   |   |
|---|--------------|--|--|---|
| ✓ | 10000        | Balance as of end of Year 1: \$10400.00.<br>Balance as of end of Year 2: \$10816.00.<br>Balance as of end of Year 3: \$11248.64. | Balance as of end of Year 1: \$10400.00.<br>Balance as of end of Year 2: \$10816.00.<br>Balance as of end of Year 3: \$11248.64. | ✓ |
| ✓ | 20000        | Balance as of end of Year 1: \$20800.00.<br>Balance as of end of Year 2: \$21632.00.<br>Balance as of end of Year 3: \$22497.28. | Balance as of end of Year 1: \$20800.00.<br>Balance as of end of Year 2: \$21632.00.<br>Balance as of end of Year 3: \$22497.28. | ✓ |

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

### Question 5

Correct

Mark 1.00 out of 1.00

Flag question

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

IF Lokpaul wins print true, otherwise false.

Sample Input

10

Sample Output

True

Explanation:

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

**For example:**

| <b>Input</b> | <b>Result</b> |
|--------------|---------------|
| 101          | False         |

**Answer:** (penalty regime: 0 %)

**Answer:** (penalty regime: 0 %)

```
x=int(input())
if x%2==0:
    print("True")
else:
    print("False")
```

|   | <b>Input</b> | <b>Expected</b> | <b>Got</b> |   |
|---|--------------|-----------------|------------|---|
| ✓ | 56           | True            | True       | ✓ |
| ✓ | 101          | False           | False      | ✓ |
| ✓ | -1           | False           | False      | ✓ |

**Question 6**

Correct

Mark 1.00 out of 1.00

 Flag question

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

**Input format:**

Line 1 has the total number of weapons

Line 2 has the total number of Soldiers.

**Output Format:**

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

Sample Input:

32

43

Sample Output:

False

**For example:**

| Input | Result |
|-------|--------|
| 32    | False  |
| 43    |        |

**Answer:** (penalty regime: 0 %)

**Answer:** (penalty regime: 0 %)

```
x=int(input())
y=int(input())
if x%3==0 and y%2==0 :
    print("True")
else:
    print("False")
```

|   | Input         | Expected | Got   |   |
|---|---------------|----------|-------|---|
| ✓ | 32<br>43      | False    | False | ✓ |
| ✓ | 273<br>7890   | True     | True  | ✓ |
| ✓ | 800<br>4590   | False    | False | ✓ |
| ✓ | 6789<br>32996 | True     | True  | ✓ |

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

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**Question 7**

Correct

Mark 1.00 out of 1.00

 Flag question

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

Sample Input

100

Sample Output

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

**For example:**

| Input | Result  |
|-------|---|
| 100   | The tax is 5.00 and the tip is 18.00, making the total 123.00 |

**Answer:** (penalty regime: 0 %)

```
cost=int(input())
tax=0.05*cost
tip=0.18*cost
total=cost+tax+tip
print("The tax is {:.2f} and the tip is {:.2f}, making the total {:.2f}".format(tax,tip,total))
```

|   | 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 tot  |
| ✓ | 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 tot |

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

**Question 8**

Correct

Mark 1.00 out of 1.00

 Flag question

Write a 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 %)

```
x=int(input())
y=abs(x)
z=y%10
print(z)
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

### Question 9

Correct

Mark 1.00 out of  
1.00

Flag question

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

Hint:

Use ASCII values of C and D.

#### Input Format:

An integer x,  $0 \leq x \leq 1$ .

#### 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())
if x==0 :
    print("C")
if x==1 :
    print("D")
```

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

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

**Question 10**

Correct

Mark 10.00 out  
of 10.00

Flag  
question

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

[Sample Input:](#)

10

20

[Sample Output:](#)

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

**Answer:** (penalty regime: 0 %)

```
x=int(input())
y=int(input())
w=x*75
g=y*112
z=w+g
print("The total weight of all these widgets and gizmos is",z,"grams.")
```

|   | Input    | Expected  | Got   |
|---|----------|---|---|
| ✓ | 10<br>20 | The total weight of all these widgets and gizmos is 2990 grams. | The total weight of all these widgets and gizmos is |

Passed all tests! ✓

**Correct**

Marks for this submission: 10.00/10.00.

220901055

Question 1

Correct

Mark 1.00 out of

1.00

 Flag question

What is the output of the following code.

```
a="REC"  
if a in ("rec"):  
    print(a)  
print(a)
```

- a. false  
REC
- b. REC ✓
- c. REC  
REC
- d. No output  
REC

Your answer is correct.

The correct answer is:  
REC

220901055

Question 2

Correct

Mark 1.00 out of  
1.00

 Flag question

Correct syntax of writing 'simple if' statement is \_\_\_\_\_

- a. **if condition**  
**statements**
- b. **if condition --**  
**statements**
- c. **if (condition)**  
**statements**
- d. **if condition :** ✓  
**statements**

Your answer is correct.

The correct answer is:

**if condition :  
statements**

220901055

Question 3  
Incorrect  
Mark 0.00 out of  
1.00  
[Flag question](#)

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

a. present  
 b. Runtime Error  
 c. absent  
 d. compilation error ✗

Your answer is incorrect.

The correct answer is:  
present

220901055

Question 4  
Correct  
Mark 1.00 out of  
1.00  
[Flag question](#)

Can we write if/else into one line in python?

- a. No
- b. Yes ✓

Your answer is correct.

The correct answer is:  
Yes

220901055

**Question 5**

Incorrect

Mark 0.00 out of  
1.00

 Flag question

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 lesser than 0,x will be 0 after this code executes
- b. if x is greater than 2, x will equal 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 incorrect.

The correct answer is:

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

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**Question 6**

Correct

Mark 1.00 out of  
1.00

 Flag question

**What is the output of the given below program?**

**if 1 + 3 == 7:**

**print("Hello")**

**else:**

**print("REC")**

- a. Hello
- b. Compiled Successfully, No Output.
- c. REC ✓

Your answer is correct.

The correct answer is:

**REC**

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Question 7  
Correct

Mark 1.00 out of  
1.00

 Flag question

What is the output of the following snippet?

```
s1 = "IIT " # Remember there is a space after T in IIT
s2 = "Punjab"
s1 = s1 * 2
s2 = "Ropar"
print(s1, s2)
```

- a. IIT Ropar
- b. IIT IIT Punjab
- c. IIT Punjab
- d. IIT IIT Ropar ✓

Your answer is correct.

The correct answer is:  
IIT IIT Ropar

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Question 8  
Correct  
Mark 1.00 out of  
1.00  
[Flag question](#)

What does the arithmetic operator % do?

- a. Finds the product of two numbers
- b. Finds the sum of two numbers
- c. Finds the quotient on dividing two numbers
- d. Finds the remainder on dividing two numbers ✓

Your answer is correct.

The correct answer is:

Finds the remainder on dividing two numbers

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Question 9

Correct

Mark 1.00 out of  
1.00

 Flag question

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. 4
- b. 6
- c. 5
- d. 7 ✓

Your answer is correct.

The correct answer is:

7

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**Question 10**

Correct

Mark 1.00 out of  
1.00  
 Flag question

What is the value of x at the end of the following sequence of instructions?

$x = 10$   
 $x = x * 3$   
 $x = x + 5$

- a. 35 ✓
- b. 30
- c. 15
- d. 45

Your answer is correct.

The correct answer is:  
35

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**Question 11**

Correct

Mark 1.00 out of  
1.00

 Flag question

With what extension are the python files saved?

- a. .p
- b. .pyn
- c. .python
- d. .py ✓

Your answer is correct.

The correct answer is:

.py

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**Question 12**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

Given the nested `if-else` below, what will be the value `x` when the code executed successfully?

```
x = 0
a = 5
b = 5

if a > 0:
    if b < 0:
        x = x + 5
    elif a > 5:
        x = x + 4
    else:
        x = x + 3
else:
    x = x + 2

print(x)
```

- a. 3 ✓
- b. 2
- c. 4
- d. 0

Your answer is correct.

The correct answer is:

3

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Question **13**

Correct

Mark 1.00 out of  
1.00

 Flag question

What is the output of the given below program?

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

- a. Hello
- b. Compiled Successfully, No Output.
- c. Know Program ✓
- d. Error

Your answer is correct.

The correct answer is:

Know Program

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**Question 14**

Correct

Mark 1.00 out of  
1.00

 Flag question

\_\_\_\_\_ is an empty statement in Python.

- a. Jump
- b. pass ✓
- c. Empty
- d. None

Your answer is correct.

The correct answer is:  
pass

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**Question 15**

Correct

Mark 1.00 out of  
1.00

 Flag question

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

- a. True
- b. False ✓

Your answer is correct.

The correct answer is:  
False

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**Question 1**

Correct

Mark 1.00 out of  
1.00

Flag question

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

- Any year that is divisible by 400 is a leap year.
- Of the remaining years, any year that is divisible by 100 is not a leap year.
- Of the remaining years, any year that is divisible by 4 is a leap year.
- 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 %)

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```
1 year= int(input())
2 if (year%400==0 and year%4==0) or year%100!=0:
3     print(f"{year} is a leap year.")
4 else:
5     print(f"{year} is not a leap year.")
```

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|   | <b>Input</b> | <b>Expected</b>          | <b>Got</b>               |   |
|---|--------------|--------------------------|--------------------------|---|
| ✓ | 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.

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**Question 2**

Correct

Mark 1.00 out of  
1.00

Flag question

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

Marks in Maths  $\geq$  65

Marks in Physics  $\geq$  55

Marks in Chemistry  $\geq$  50

Or

Total in all three subjects  $\geq$  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

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For example:

| Input | Result                    |
|-------|---------------------------|
| 70    | The candidate is eligible |
| 60    |                           |
| 80    |                           |

Answer: (penalty regime: 0 %)

```
1 sub_1 = int(input())
2 sub_2 = int(input())
3 sub_3 = int(input())
4 total = sub_1 + sub_2 + sub_3
5 if (sub_1>=65 and sub_2>=55 and sub_3>=50) or total>=180:
6     print("The candidate is eligible")
7 else:
8     print("The candidate is not eligible")
```

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|   | <b>Input</b>   | <b>Expected</b>               | <b>Got</b>                    |   |
|---|----------------|-------------------------------|-------------------------------|---|
| ✓ | 70<br>60<br>80 | The candidate is eligible     | The candidate is eligible     | ✓ |
| ✓ | 50<br>80<br>80 | The candidate is eligible     | The candidate is eligible     | ✓ |
| ✓ | 50<br>60<br>40 | The candidate is not eligible | The candidate is not eligible | ✓ |
| ✓ | 20<br>10<br>25 | The candidate is not eligible | The candidate is not eligible | ✓ |

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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**Question 3**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

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

Sample Input 1

i

Sample Output 1

It's a vowel.

Sample Input 2

y

Sample Output 2

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

Sample 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.                                     |

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```

1 alp= input()
2 vowel=['a','e','i','o','u']
3
4 vowel_1 = 'y'
5 for i in vowel:
6     if i==alp:
7         print("It's a vowel.")
8     else:
9         pass
10
11 if alp==vowel_1:
12     print("Sometimes it's a vowel... Sometimes it's a consonant.")
13 else:
14     pass
15
16 if 'a'!=alp and 'e'!=alp and 'i'!=alp and 'o'!=alp and 'u'!=alp and alp!=vowel_1:
17     print("It's a consonant.")
18 else:
19     pass
20
21
22

```

|   | <b>Input</b> | <b>Expected</b>                                       | <b>Got</b>  |   |
|---|--------------|---|---|---|
| ✓ | 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.   | ✓ |
| ✓ | r            | It's a consonant.                                     | It's a consonant.                                     | ✓ |

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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**Question 4**

Correct

Mark 1.00 out of

1.00

[Flag question](#)

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

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

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

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

**For example:**

| Input | Result |
|-------|--------|
| 197   | 9      |
| 5     | -1     |

**Answer:** (penalty regime: 0 %)

```
1 num = abs(int(input()))
2 num_1 = num%100
3 num2 = str(num_1)
4 if num<10:
5     print(-1)
6 else:
7     print(int(num2[0]))
```

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|   | 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.

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Question 5  
Correct  
Mark 1.00 out of 1.00  
[Flag question](#)

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

Sample Input 1

February

Sample Output 1

February has 28 or 29 days in it.

Sample Input 2

March

Sample Output 2

March has 31 days in it.

Sample Input 3

April

Sample Output 3

April has 30 days in it.

**For example:**

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

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```
1 mth =str(input())
2
3 mth_31 = ['January','March','May','July','August','October','December']
4 mth_30 = ['April','June','September','November']
5 if mth in mth_31:
6     print(f"{mth} has 31 days in it.")
7 elif mth in mth_30:
8     print(f"{mth} has 30 days in it.")
9 else:
10    print("February has 28 or 29 days in it.")
11
12
```

|   | <b>Input</b> | <b>Expected</b>                   | <b>Got</b>                        |   |
|---|--------------|-----------------------------------|-----------------------------------|---|
| ✓ | 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.

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**Question 6**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

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  $3^2 + 4^2 = 25 = 5^2$

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

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**Answer:** (penalty regime: 0 %)

```
1 a= int (input())
2 b=int(input ())
3 c= int(input())
4 v if a>b and a>c:
5     hyp=a
6     a1=b
7     a2=c
8 v elif b>a and b>c:
9     hyp=b
10    a1=a
11    a2=c
12 v else:
13     hyp=c
14     a1=a
15     a2=b
16 sum1=(a1*a1)+(a2*a2)
17 hyp1=hyp*hyp
18 v if sum1==hyp1:
19     print('yes')
20 v else:
21     print('no')
```

|   | Input       | Expected | Got |   |
|---|-------------|----------|-----|---|
| ✓ | 3<br>5<br>4 | yes      | yes | ✓ |
| ✓ | 5<br>8<br>2 | no       | no  | ✓ |

Passed all tests! ✓

220901055

Question **7**

Correct

Mark 1.00 out of

1.00

 Flag question

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

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For example:

| Input | Result |
|-------|--------|
| 8     | OUT    |
| 3     |        |

Answer: (penalty regime: 0 %)

```
1 prob=int(input ())
2 comp=int(input())
3 entry=prob/2
4 if comp>=entry:
5     print("IN")
6 else:
7     print ("OUT")
```

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|   | Input    | Expected | Got |   |
|---|----------|----------|-----|---|
| ✓ | 8<br>3   | OUT      | OUT | ✓ |
| ✓ | 8<br>5   | IN       | IN  | ✓ |
| ✓ | 20<br>9  | OUT      | OUT | ✓ |
| ✓ | 50<br>31 | IN       | IN  | ✓ |

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

220901055

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

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For example:

| Input          | Result                        |
|----------------|-------------------------------|
| 60<br>60<br>60 | That's a equilateral triangle |
| 40<br>40<br>80 | That's a isosceles triangle   |

Answer: (penalty regime: 0 %)

```
1 a=int(input())
2 b=int(input())
3 c=int(input())
4 if a==b==c:
5     print("That's a equilateral triangle")
6 elif a==b!=c:
7     print ("That's a isosceles triangle")
8 else:
9     print("That's a scalene triangle ")
```

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|   | Input          | Expected                      | Got                           |   |
|---|----------------|-------------------------------|-------------------------------|---|
| ✓ | 60<br>60<br>60 | That's a equilateral triangle | That's a equilateral triangle | ✓ |
| ✓ | 40<br>40<br>80 | That's a isosceles triangle   | That's a isosceles triangle   | ✓ |
| ✓ | 50<br>60<br>70 | That's a scalene triangle     | That's a scalene triangle     | ✓ |
| ✓ | 50<br>50<br>80 | That's a isosceles triangle   | That's a isosceles triangle   | ✓ |
| ✓ | 10<br>10<br>10 | That's a equilateral triangle | That's a equilateral triangle | ✓ |

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

220901055

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 |

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```
1 a=float(input())
2 b=0
3 if a<199 and a>=100:
4     b=1.20
5 elif a<200 and a>=400:
6     b=1.50
7 elif a<600 and a>=400:
8     b=1.80
9 elif a>=600:
10    b=2.00
11 else:
12     tot=100.00
13     print(tot)
14
15 tot=a*b
16 sur=(15/100)*tot
17 if tot>400:
18     tot1=(a*b)+sur
19     print(tot1)
20 elif tot>100:
21     print(tot)
22
```

|   | Input  | Expected | Got    |   |
|---|--------|----------|--------|---|
| ✓ | 50     | 100.00   | 100.0  | ✓ |
| ✓ | 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.

220901055

**Question 10**

Correct

Mark 1.00 out of  
1.00

Flag question

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

Year Animal

2000 Dragon

2001 Snake

2002 Horse

2003 Sheep

2004 Monkey

2005 Rooster

2006 Dog

2007 Pig

2008 Rat

2009 Ox

2010 Tiger

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 %)

220901055

```
1
2 year = int(input())
3
4
5
6 if (year - 2000) % 12 == 0:
7     sign = 'Dragon'
8
9 elif (year - 2000) % 12 == 1:
10    sign = 'Snake'
11
12 elif (year - 2000) % 12 == 2:
13    sign = 'Horse'
14
15 elif (year - 2000) % 12 == 3:
16    sign = 'Sheep'
17
18 elif (year - 2000) % 12 == 4:
19    sign = 'Monkey'
20
21 elif (year - 2000) % 12 == 5:
22    sign = 'Rooster'
23
24 elif (year - 2000) % 12 == 6:
25    sign = 'Dog'
26
27 elif (year - 2000) % 12 == 7:
28    sign = 'Pig'
29
30 elif (year - 2000) % 12 == 8:
31    sign = 'Rat'
32
33 elif (year - 2000) % 12 == 9:
34    sign = 'Ox'
35
36 elif (year - 2000) % 12 == 10:
37    sign = 'Tiger'
38
39 else:
40    sign = 'Hare'
41
42
43 print(f"{year} is the year of the {sign}.")
```

220901055

|   | <b>Input</b> | <b>Expected</b>                | <b>Got</b>                     |   |
|---|--------------|--------------------------------|--------------------------------|---|
| ✓ | 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.

220901055

**Question 1**

Correct

Mark 1.00 out of 1.00

[Flag question](#)

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

Input Format:

Single integer input.

Output Format:

Yes or No.

Example Input:

24

Output:

Yes

Example Input:

26

Output:

No

For example:

| Input | Result |
|-------|--------|
| 24    | Yes    |

**Answer:** (penalty regime: 0 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
a=int(input())
b=False
for i in range(1,a):
    if(i*i==(a+1)):
        b=True
        break
if(b):
    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 2**

Correct

Mark 1.00 out of 1.00

[Flag question](#)

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

Input Format:

Single Integer Input from stdin.

Output Format:

Yes or No.

Example Input:

175

Output:

Yes

Explanation

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

Example Input:

123

Output:

No

For example:

| Input | Result |
|-------|--------|
| 175   | Yes    |
| 123   | No     |

**Answer:** (penalty regime: 0 %)

ACE editor not ready. Perhaps reload page?

Falling back to raw text area.

```
a=input()
sum=0
x=1
for i in a:
    b=int(i)**x
    x+=1
    sum+=b
if(sum==int(a)):
    print("Yes")
else:
    print("No")
```

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

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

**Question 3**

Correct

Mark 1.00 out of 1.00

[Flag question](#)

Write a program that finds whether the given number N is Prime or not.

If the number is prime, the program should return 2 else it must return 1.

Assumption:  $2 \leq N \leq 5000$ , where N is the given number.

Example1: if the given number N is 7, the method must return 2

Example2: if the given number N is 10, the method must return 1

**For example:**

| Input | Result |
|-------|--------|
| 7     | 2      |
| 10    | 1      |

**Answer:** (penalty regime: 0 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
a=int(input())
count=0
for i in range(1,a+1):
    if(a%i==0):
        count+=1
if(count==2):
    print(2)
else:
    print(1)
```

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

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

**Question 4**

Correct

Mark 1.00 out of 1.00

[Flag question](#)

Write a program to 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  $\geq 1$  and  $\leq 25000$ .

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 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
a=input()
b=""
for i in a:
    count=0
    for j in a:
        if(i==j):
            count+=1
        if(count==2):
            b+=i
print(len(a)-len(b))
```

|   | 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 5**

Correct

Mark 1.00 out of 1.00

 [Flag question](#)

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

**Input Format:**

Integer input from stdin.

**Output Format:**

Perfect square greater than N.

**Example Input:**

10

**Output:**

16

**Answer:** (penalty regime: 0 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
a=int(input())
for i in range(1,a):
    b=i*i
    if(b>=a):
        print(b)
        break
```

|   | Input | Expected | Got |   |
|---|-------|----------|-----|---|
| ✓ | 10    | 16       | 16  | ✓ |

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

**Question 6**

Correct

Mark 1.00 out of 1.00

[Flag question](#)

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 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
a=int(input())
x=False
for i in range(2,10):
    for j in range(1,10):
        if(i*j==a):
            x=True
            break
if(x):
    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

[Flag question](#)

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

Sample Test Cases

Test Case 1

Input

4

Output

1234

Test Case 2

Input

6

Output

123456

**Answer:** (penalty regime: 0 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
a=int(input())
b='1'
sum=0
for i in range(1,a+1):
    C=b*i
    sum=sum+int(C)
print(sum)
```

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

**Question 8**

Correct

Mark 1.00 out of 1.00

[Flag question](#)

In 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,

$$5! = 5 \times 4 \times 3 \times 2 \times 1 = 120$$

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

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

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

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

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

Assumptions for this program:

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

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

For example:

| Input | Result |
|-------|--------|
| 5     | 120    |
| 4     | 24     |
| 9     | 362880 |

**Answer:** (penalty regime: 0 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

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

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

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

**Question 9**

Correct

Mark 1.00 out of 1.00

[Flag question](#)

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

Assumption: The input number will be a positive integer number  $\geq 1$  and  $\leq 25000$ .

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 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
a=input()
b=""
for i in a:
    if(i not in b):
        b+=i
print(len(b))
```

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

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

**Question 10**

Correct

Mark 1.00 out of 1.00

[Flag question](#)

Write a program to 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 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
n=int(input())
a=0
b=1
if(n==1):
    print(0)
elif(n==2):
    print(1)
else:
    for i in range(n-2):
        x=a+b
        a=b
        b=x
    print(x)
```

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

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

**Started on** Thursday, 18 April 2024, 11:24 AM

**State** Finished

**Completed on** Thursday, 18 April 2024, 11:38 AM

**Time taken** 14 mins 3 secs

**Grade** 14.00 out of 15.00 (93.33%)

**Question 1**

Correct

Mark 1.00 out of  
1.00

Flag  
question

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

a. 0

1

2

0

b. 0 ✓

0

1

2

0

c. 0

0

1

1

0

d. 0

1

1

1

0

Your answer is correct.

The correct answer is:

0

0

1

2

0

**Question 2**

Correct

Mark 1.00 out of  
1.00

Flag  
question

How many times it will print the statement?

```
for i in range(102):
    print(i)
```

Answer:



The correct answer is: 102

**Question 3**

Correct

Mark 1.00 out of  
1.00 Flag  
question

For loop in python is

- a. Entry Control Loop ✓
- b. Exit Control Loop
- c. Multi Control Loop
- d. Simple Loop

Your answer is correct.

The correct answer is:  
Entry Control Loop**Question 4**

Incorrect

Mark 0.00 out of  
1.00 Flag  
question

```
num =0
while num < 5:
    num = num + 1
    print('num = ', num)
```

Predict the output of the following?

- a. Prints no output
- b. Runtime error
- c. Runs correctly ✗
- d. Indentation Error

Your answer is incorrect.

The correct answer is:  
Indentation Error**Question 5**

Correct

Mark 1.00 out of  
1.00 Flag  
question

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

- a. 234
- b. 34
- c. 23 ✓
- d. 1234

Your answer is correct.

The correct answer is:  
23**Question 6**

Correct

Mark 1.00 out of  
1.00 Flag  
question

```
numbers = (8, 9, 11, 20)
a = 1
for num in numbers:
    a = a * num
print(a)
```

Predict the output of the program?

Answer: 15840 ✓

The correct answer is: 15840

**Question 7**

Correct

Mark 1.00 out of 1.00

 Flag question

```
True= False
while(True):
    print(True)
    break
```

What is the output of the following?

- a. Syntax Error ✓
- b. False
- c. True
- d. No output

Your answer is correct.

The correct answer is:

Syntax Error

**Question 8**

Correct

Mark 1.00 out of 1.00

 Flag question

The range() function by defaults increments by

Answer:  ✓

The correct answer is: 1

**Question 9**

Correct

Mark 1.00 out of 1.00

 Flag question

A for loop can iterate over a

- a. float
- b. list ✓
- c. bool
- d. integer

Your answer is correct.

The correct answer is:

list

**Question 10**

Correct

Mark 1.00 out of 1.00

 Flag question

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

What is the output of the following?

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- a. **0**  
0  
1  
1  
0
- b. **0**  
1  
2  
0
- c. **0 ✓**  
0  
1  
2  
0
- d. **0**  
1  
1  
1  
0

Your answer is correct.

The correct answer is:

0  
0  
1  
2  
0

**Question 11**

Correct

Mark 1.00 out of  
1.00

Flag  
question

Which of the following is a loop in python?

- a. For ✓
- b. If-Else
- c. Do-While
- d. Break

Your answer is correct.

The correct answer is:

For

**Question 12**

Correct

Mark 1.00 out of  
1.00

Flag  
question

Predict the output of the program?

```
for x in range(4):
    if x == 3: break
        print(x)
    else:
        print("Finally finished!")
```

```
print("Finally finished!")
```

- a. 0  
1  
2  
3  
Finally Finished!
- b. Finally Finished!
- c. 0 ✓  
1  
2
- d. 0  
1  
2  
3

Your answer is correct.

The correct answer is:

- 0
- 1
- 2

**Question 13**

Correct

Mark 1.00 out of 1.00

Flag question

```
True=False
while(True):
    print(True)
    break
```

What is the output of the following?

- a. Syntax Error ✓
- b. False
- c. True
- d. No output

Your answer is correct.

The correct answer is:

Syntax Error

**Question 14**

Correct

Mark 1.00 out of  
1.00 Flag  
question

A for loop can iterate over a

- a. integer
- b. float
- c. list ✓
- d. bool

Your answer is correct.

The correct answer is:  
list**Question 15**

Correct

Mark 1.00 out of  
1.00 Flag  
question

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

Predict the output of the program?

- a. Prints 0,1,2
- b. Runtime Error
- c. Prints nothing ✓
- d. Compilation Error

Your answer is correct.

The correct answer is:  
Prints nothing

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**Question 1**

Complete

 Flag question

What is the output of the following code?

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

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

**Question 2**

Complete

 Flag question

What is the output of the following?

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

- a. Error
- b. 0 1 2 0
- c. 0 1 2
- d. 0 1 2 3 0

**Question 3**

Complete

[Flag question](#)

What is the output of the following code?

```
my_string = 'arvijayakumar'  
for i in range(my_string):  
    print(i)
```

- a. 0 1 2 3 ... 12
  - 1.
- b. arvijayakumar
- c. None
- d. Error

**Question 4**

Complete

[Flag question](#)

What is the output of the following code?

```
line = "What will have so will"  
L = line.split('a')  
for i in L:  
    print(i, end=' ')
```

- a. ['Wh', 't will h', 've so will']
- b. Wh t will h ve so will
- c. What will have so will
- d. ['What', 'will', 'have', 'so', 'will']

**Question 5**

Complete

[Flag question](#)

What arithmetic operators cannot be used with strings in Python?

- a. +
- b. \*
- c. All of the mentioned
- d. -

**Question 6**

Complete

[Flag question](#)

What is the output of the following Code?

```
str1="6/4"  
print("str1")
```

Answer: **Question 7**

Complete

[Flag question](#)

What is the output of the following Code?

```
print(ord('D'))
```

Answer: **Question 8**

Complete

[Flag question](#)

What is the output of the following code.

```
Line1 = "And Then There Were None"  
Line2 = "Famous In Love"  
Line3 = "Famous Were The Kol And Klaus"  
Line4 = Line1 + Line2 + Line3  
print("And" in Line4)
```

- a. False
- b. True 2
- c. False 2
- d. True

**Question 9**

Complete

[Flag question](#)

What is the index value of 'i' in string "Learning"

- a. 3
- b. 5
- c. 6
- d. 7

**Question 10**

Complete

[Flag question](#)

What is the output of the following code?

```
str1="vijay"  
for i in range(len(str1),6):  
    print(i)
```

- a. 5
- b. y
- c. None of the above
- d. vijay

**Question 11**

Complete

[Flag question](#)

What will be the output of the following code?

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

Answer: abababab

**Question 12**

Complete

[Flag question](#)

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

- a. hello6
- b. hello123
- c. Error
- d. hello

**Question 13**

Complete

[Flag question](#)

What is the output of the following Code?

```
print(chr(70))
```

Answer: **Question 14**

Complete

[Flag question](#)

What is the output of the following code?

```
str1='vijayakumar'  
str2='.'  
str3='---'  
print(str1[-1:])
```

- a. ramukayajiv
- b. 'r'
- c. vijayakuma
- d. None of the above

**Question 15**

Complete

[Flag question](#)

Python considered the character enclosed in triple quotes as String.

Select one:

- True
- False

Question 1

Correct

Mark 1.00 out of 1.00

 Flag question

**Reverse a string without affecting special characters**

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

**Input:**

A&B

**Output:**

B&A

**Explanation:** As we ignore '&' and

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

**For example:**

| Input | Result |
|-------|--------|
| A&x#  | x&A#   |

**Answer:** (penalty regime: 0 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
string=input()
string_list=list(string)
start=0
end=len(string_list)-1
while start<end:
    if not
        string_list[start].isalpha():
            start+=1
    elif not
        string_list[end].isalpha():
            end-=1
    else:

        string_list[start],string_list[
            end]=string_list[end],string_li
            st[start]
            start+=1
            end-=1
reversed_string=''.join(string_
list)
print(reversed_string)
```

|   | Input | Expected | Got |   |
|---|-------|----------|-----|---|
| ✓ | A&B   | B&A      | B&A | ✓ |

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

**Question 2**

Correct

Mark 1.00 out of 1.00

[Flag question](#)

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:**

$2 \leq N \leq 10$   
 $2 \leq \text{Length of } S1, S2 \leq 1000$

**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 %)

Ace editor not ready. Perhaps reload page?  
Falling back to raw text area.

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

|   | Input                   | Expected | Got |   |
|---|-------------------------|----------|-----|---|
| ✓ | abcbde<br>cdefghbb<br>3 | bcd      | bcd | ✓ |

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

**Question 3**

Correct

Mark 1.00 out of 1.00

[Flag question](#)

Write a 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 %)

Ace editor not ready. Perhaps reload page?  
Falling back to raw text area.

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

|   | Input                        | E  |
|---|------------------------------|----|
| ✓ | Wipro Technologies Bangalore | Ti |
| ✓ | Hello World                  | W  |
| ✓ | Hello                        | Li |

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

**Question 4**

Correct

Mark 1.00 out of 1.00

[Flag question](#)

Assume that the given string has enough memory.

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

**Sample Input 1**

a2b4c6

**Sample Output 1**

aabbbbcccccc

**Answer:** (penalty regime: 0 %)

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Falling back to raw text area.

```
input_string=input().strip()
result_string= ""
i=0
while i<len(input_string):
    char=input_string[i]
    if char.isalpha():
        count=0
        j=i+1
        while
j<len(input_string) and
input_string[j].isdigit():
            count=count*10 +
int(input_string[j])
            j+=1

    result_string+=char*count
    i=j
else:
```

|   | Input   | Expected            | Given |
|---|---------|---------------------|-------|
| ✓ | a2b4c6  | aabbbbcccccc        | aa    |
| ✓ | a12b3d4 | aaaaaaaaaaaabbddddd | aa    |

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

**Question 5**

Correct

Mark 1.00 out of 1.00

[Flag question](#)

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

first

second

first

third

second

then your program should display:

first

second

third

**Answer:** (penalty regime: 0 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
a=input()
b=input()
c=input()
d=input()
e=input()
print(a)
if b!=a:
    print(b)
if c!=a and c!=b:
    print(c)
if d!=a and d!=c:
    print(d)
if e!=a and e!=b:
    print(e)
```

|   | Input                                       | Expected                 | Got                      |   |
|---|---|--------------------------|--------------------------|---|
| ✓ | first<br>second<br>first<br>third<br>second | first<br>second<br>third | first<br>second<br>third | ✓ |
| ✓ | rec<br>cse<br>it<br>rec<br>cse              | rec<br>cse<br>it         | rec<br>cse<br>it         | ✓ |

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

**Question 6**

Correct

Mark 1.00 out of 1.00

[Flag question](#)

Write a program to 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<br>PYnative | True   |

**Answer:** (penalty regime: 0 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
s1=input()
s2=input()
"""set() converts string into
set, duplicate ll be removed
and letter is printed only
once"""
set_s1=set(s1)
set_s2=set(s2)
balanced=True
for char in set_s1:
    if char not in set_s2:
        balanced=False
        break
if balanced:
    print("True")
else:
    print("False")
```

|   | Input           | Expected | Got   |   |
|---|-----------------|----------|-------|---|
| ✓ | Yn<br>PYnative  | True     | True  | ✓ |
| ✓ | Ynf<br>PYnative | False    | False | ✓ |

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

**Question 7**

Correct

Mark 1.00 out of 1.00

[Flag question](#)

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

**Constraints**

1<= string length <= 200

**Sample Input 1**

experience  
enc

**Sample Output 1**

xpri

**Answer:** (penalty regime: 0 %)

Ace editor not ready. Perhaps reload page?  
Falling back to raw text area.

```
s1=input().strip()  
s2=input().strip()  
result=''.join(char for char in  
s1 if char not in s2)  
print(result)
```

|   | <b>Input</b>      | <b>Expected</b> | <b>Got</b> |   |
|---|-------------------|-----------------|------------|---|
| ✓ | experience<br>enc | xpri            | xpri       | ✓ |

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

Question 8

Correct

Mark 1.00 out of 1.00

Flag question

Given 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.<br>raja<br>arvi |

**Answer:** (penalty regime: 0 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

a,b=map(str,input().split("@"))  
b,c=map(str,b.split(".",1))  
print(c)  
print(b)  
print(a)

| Input                           |
|---------------------------------|
| abcd@gmail.com                  |
| arvijayakumar@rajalakshmi.edu.i |

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

**Question 9**

Correct

Mark 1.00 out of 1.00

[Flag question](#)

String should contain only the words are not palindrome.

**Sample Input 1**

Malayalam is my mother tongue

**Sample Output 1**

is my mother tongue

**Answer:** (penalty regime: 0 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
a=input()  
d=a.lower()  
words=d.split()  
b=""  
for word in words:  
    if word!=word[::-1]:  
        b+=word + " "  
print(b)
```

|   | Input                         |   |
|---|-------------------------------|---|
| ✓ | Malayalam is my mother tongue | . |

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

**Question 10**

Correct

Mark 1.00 out of 1.00

[Flag question](#)

Write a 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 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

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

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

**Question 1**

Incorrect

Mark 0.00 out of  
1.00 Flag  
question

Write the output of the following:

```
T=(1,2,3,4,5,5)
L = list(T)
print(L*2)
```

Answer: [1,2,3,4,5,5,1,2,3,4,5,5]

The correct answer is: [1, 2, 3, 4, 5, 5, 1, 2, 3, 4, 5, 5]

**Question 2**

Correct

Mark 1.00 out of  
1.00 Flag  
question

```
1. myList = [1, 5, 5, 5, 5, 1]
2. max = myList[0]
3. indexOfMax = 0
4. for i in range(1, len(myList)):
5.     if myList[i] > max:
6.         max = myList[i]
7.         indexOfMax = i
8. print(indexOfMax)
```

Answer: 1

The correct answer is: 1

**Question 3**

Correct

Mark 1.00 out of  
1.00 Flag  
question

```
L=[1,5,9]
print(sum(L),max(L),min(L))
```

Answer: 15 9 1

The correct answer is: 15 9 1

**Question 4**

Correct

Mark 1.00 out of  
1.00 Flag  
question

What is the output of the following code?

```
list1 = ["hi", "we", "are", "the", "elements", "in", "a", "List"]
for i in list1:
    print(list1[i])
```

a. hi hi hi hi hi hi  
 b. hi  
 c. hi we are the elements in a list  
 d. error ✓

Your answer is correct.

The correct answer is:  
error

**Question 5**

Correct

Mark 1.00 out of  
1.00 Flag  
question

What will be the output after the following statements?  
`m = list(range(7,10))  
print(m)`

- a. [7, 8, 9, 10]
- b. list([7, 8, 9])
- c. 789
- d. [7, 8, 9] ✓

Your answer is correct.

The correct answer is:  
[7, 8, 9]**Question 6**

Correct

Mark 1.00 out of  
1.00 Flag  
question

Find the output?

```
list1 = [1, 2, 3, 4, 1, 2, 3]
list1.sort()
list1.pop()
list1.reverse()
print(list1)
```

- a. [3, 2, 1, 3, 2, 1]
- b. [4, 3, 3, 2, 2, 1, 1]
- c. [3, 3, 2, 2, 1, 1] ✓
- d. [4, 3, 3, 2, 2, 1]

Your answer is correct.

The correct answer is:  
[3, 3, 2, 2, 1, 1]**Question 7**

Incorrect

Mark 0.00 out of  
1.00 Flag  
question

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

Answer: [4,3] ×

The correct answer is: [4, 3]

**Question 8**

Correct

Mark 1.00 out of  
1.00 Flag  
question

What will be the output after the following statements?  
`m = ['July', 'September', 'December']  
n = m[0] + m[2]  
print(n)`

- a. SeptemberDecember
- b. July
- c. JulySeptember
- d. JulyDecember ✓

Your answer is correct.

The correct answer is:  
JulyDecember

Question 9  
Correct  
Mark 1.00 out of 1.00  
 Flag question

Find the output?

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

- a. 9 ✓
- b. 11
- c. 3
- d. 12

Your answer is correct.

The correct answer is:  
9

Question 10  
Correct  
Mark 1.00 out of 1.00  
 Flag question

Which of the following searches for an element in a list and returns its index?

- a. find()
- b. pop()
- c. index() ✓
- d. search()

Your answer is correct.

The correct answer is:  
index()

Question 11  
Correct  
Mark 1.00 out of 1.00  
 Flag question

What will be the output after the following statements?

```
m = [45, 51, 67]  
n = m[2]  
print(n)
```

- a. 67 ✓
- b. 45
- c. 51
- d. [45, 51, 67]

Your answer is correct.

The correct answer is:  
67

Question 12  
Correct  
Mark 1.00 out of 1.00  
 Flag question

What is the output when we execute list("welcome")

- a. c)['emoclew']
- b. a) ['w', 'e', 'l', 'c', 'o', 'm', 'e'] ✓
- c. b) ['welcome']

Your answer is correct.

The correct answer is:  
a) ['w', 'e', 'l', 'c', 'o', 'm', 'e']

**Question 13**

Correct

Mark 1.00 out of  
1.00 Flag  
question

Find the output?

```
list1 = [1, 2, 3, 4, 1, 2, 3, 1]
list2 = list1
list1.clear()
print(list2)
```

- a. [1, 2, 3, 4, 1, 2, 3, 1]
- b. [1, 1, 2, 2, 3, 3, 4, ]
- c. [] ✓
- d. [1, 2, 3, 4]

Your answer is correct.

The correct answer is:

[]

**Question 14**

Correct

Mark 1.00 out of  
1.00 Flag  
question

Find the output?

```
list1 = [1, 2, 3, 4, 1, 2, 3]
print(list1.pop(0))
```

- a. 3 ✓
- b. []
- c. 1
- d. 2

Your answer is correct.

The correct answer is:

3

**Question 15**

Incorrect

Mark 0.00 out of  
1.00 Flag  
question

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 1**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

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

**Sample Test Cases****Test Case 1****Input**

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

**Output**

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

**Answer:** (penalty regime: 0 %)

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Falling back to raw text area.

```
a=int(input())
d=[]
for i in range(0,a):
    c=int(input())
    d.append(c)
f={}
for el in d:
    if el in f:
        f[el]+=1
    else:
        f[el]=1
for el,count in f.items():
    print(f"{el} occurs {count} times")
```

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

Passed all tests! 1

**Correct**

Marks for this submission: 1.00/1.00.

**Question 2**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

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

Input:

m : row size

n: column size

list1 and list2 : 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 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
m=int(input())
n=int(input())
l1=[]

for i in range(0,2*(m+n)):
    a=int(input())
    l1.append(a)
a=l1[:m]
b=l1[m:2*n]
c=l1[2*n:3*m]
d=l1[3*m:]
x=(a+c)
y=(b+d)
z=[x,y]
print(z)
```

|   | Input  | Expected                     | Got     |
|---|--|------------------------------|---------|
| X | 2<br>2<br>1<br>2<br>3<br>4<br>5<br>6<br>7<br>8 | [[1, 3, 2, 4], [5, 7, 6, 8]] | [[1, 2, |

Passed all tests! X

**Correct**

Marks for this submission: 1.00/1.00.

## Question 3

Correct

Mark 1.00 out of  
1.00

Flag question

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 to be inserted.

Sample Test Cases

## 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 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
a=[]
for i in range(0,11):
    b=int(input())
    a.append(b)
a.sort()
print("ITEM to be inserted:{}\n".format(b))
print("After insertion array is:")
print(*a,sep='\n')
```

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

Passed all tests!

Correct

**Question 4**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

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     | 2      |
| 1     |        |
| 2     |        |
| 3     |        |
| 3     |        |
| 3     | 1      |
| 1     |        |
| 2     |        |
| 1     |        |

**Answer:** (penalty regime: 0 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
n=int(input())
l=[]
for i in range(n):
    b=int(input())
    l.append(b)
for i in range(0,n):
    a=l[:i]
    b=l[i+1:]
    if(sum(a)==sum(b)):
        print(i)
```

|                       | Input | Expected | Got |   |
|-----------------------|-------|----------|-----|---|
| 4<br>1<br>2<br>3<br>3 | 2     | 2        | 2   | ✓ |
| 3<br>1<br>2<br>1      | 1     | 1        | 1   | ✓ |

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

Question 5  
Correct  
Mark 1.00 out of  
1.00  
[Flag question](#)

Output is a merged array without duplicates.

**Input Format**

N1 - no of elements in array 1

Array elements for array 1

N2 - no of elements in array 2

Array elements for array2

**Output Format**

Display the merged array

**Sample Input 1**

5  
1  
2  
3  
6  
9  
4  
2  
4  
5  
10

**Sample Output 1**

1 2 3 4 5 6 9 10

**Answer:** (penalty regime: 0 %)

Ace editor not ready. Perhaps reload page?  
Falling back to raw text area.

```
n=int(input())  
l=[]  
for i in range(n):  
    l.append(int(input()))  
m=int(input())  
for i in range(m):  
    b=int(input())  
    if b not in l:  
        l.append(b)  
l.sort()  
print(*l)
```

|   | Input   | Expected                         | Got |
|---|---|----------------------------------|-----|
| 1 | 5<br>1<br>2<br>3<br>6<br>9<br>4<br>2<br>4<br>5<br>10  | 1 2 3 4 5 6 9 10                 | 1 2 |
| 2 | 7<br>4<br>7<br>8<br>10<br>12<br>30<br>35<br>9<br>1<br>3<br>4<br>5<br>7<br>8<br>11<br>13<br>22 | 1 3 4 5 7 8 10 11 12 13 22 30 35 | 1 3 |

Passed all tests! 1

Correct

Question 6  
Correct  
Mark 1.00 out of  
1.00  
[Flag question](#)

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

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     | 1      |
| 3     |        |
| 1     |        |
| 3     |        |
| 5     |        |
| 4     |        |
| 1     | 0      |
| 3     |        |
| 1     |        |
| 3     |        |
| 5     |        |
| 99    |        |

Answer: (penalty regime: 0 %)

Code editor not ready. Perhaps reload page?

Falling back to raw text area.

```
t=int(input())
for k in range(t):
    n=int(input())
    l=[]
    for x in range(n):
        b=int(input())
        l.append(b)
    k=int(input())
    y=0
    for i in range(n):
        for j in range(n):
            if((l[i]-l[j])==k):
                y+=1
                break
    print(y)
```

|   | Input                       | Expected | Got |   |
|---|-----------------------------|----------|-----|---|
| 1 | 1<br>3<br>1<br>3<br>5<br>4  | 1        | 1   | 1 |
| 2 | 1<br>3<br>1<br>3<br>5<br>99 | 0        | 0   | 1 |

Passed all tests! 1

Correct

Question 7

Correct

Mark 1.00 out of  
1.00

Flag question

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

Input:

n : Number of elements

List1: **List** of values

Output

Print "True" if **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 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
n=int(input())
l=[]
isi=True
for i in range(0,n):
    c=int(input())
    l.append(c)
for i in range(n-1):
    if(l[i]>l[i+1]):
        isi=False
        break
if isi:
    print("True")
else:
    print("False")
```

|  | Input                                | Expected | Got  |  |
|--|--------------------------------------|----------|------|--|
|  | 7<br>1<br>2<br>3<br>0<br>4<br>5<br>6 | True     | True |  |
|  | 4<br>2<br>1<br>0<br>-1               | True     | True |  |

Passed all tests!

**Question 8**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

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 3 4 |
| 1     |         |
| 2     |         |
| 2     |         |
| 3     |         |
| 4     |         |
| 6     | 1 2 3   |
| 1     |         |
| 1     |         |
| 2     |         |
| 2     |         |
| 3     |         |
| 3     |         |

Answer: (penalty regime: 0 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
n=int(input())
array=[int(input().strip()) for _ in range(n)]
de=list(set(array))
de.sort()
print(" ".join(map(str,de)))
```

|   | Input                           | Expected | Got     |   |
|---|---------------------------------|----------|---------|---|
| X | 5<br>1<br>2<br>2<br>3<br>4      | 1 2 3 4  | 1 2 3 4 | X |
| X | 6<br>1<br>1<br>2<br>2<br>3<br>3 | 1 2 3    | 1 2 3   | X |

Passed all tests! X

Question 9  
Correct  
Mark 1.00 out of 1.00  
[Flag question](#)

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

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

5  
6  
5  
7

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

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

#### Sample Test Cases

##### Test Case 1

###### Input

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 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
l=[]
for i in range(n):
    k=int(input())
    l.append(k)
c=int(input())
b=[]
for i in range (len(l)):
    if l[i]==c:
        b.append(i+1)
if(len(b)!=0):
    for i in b:
        print("{} is present at location {}".format(c,i))
        print("{} is present {} times in the array.".format(c,len(b)))
    else:
        print("{} is not present in the array.".format(c))
```

|   | Input                                  | Expected   | G           |
|---|--|--|-------------|
| ☒ | 4<br>5<br>6<br>5<br>7<br>5             | 5 is present at location 1.<br>5 is present at location 3.<br>5 is present 2 times in the array. | 5<br>5<br>5 |
| ☒ | 5<br>67<br>80<br>45<br>97<br>100<br>50 | 50 is not present in the array.  | 50          |

Passed all tests! ☒

Correct

Marks for this submission: 1.00/1.00.

**Question 10**

Correct

Mark 1.00 out of  
1.00[Flag question](#)

Determine the factors of a number (i.e., all positive integer values that evenly divide into a number) and then return the  $p^{\text{th}}$  element of the list, sorted ascending. If there is no  $p^{\text{th}}$  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  $p = 3^{\text{rd}}$  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  $p = 1^{\text{st}}$  factor of 1 is returned as the answer.

**For example:**

| Input | Result |
|-------|--------|
| 10    | 5      |
| 3     |        |
| 10    | 0      |
| 5     |        |
| 1     | 1      |
| 1     |        |

**Answer:** (penalty regime: 0 %)

Ace editor not ready. Perhaps reload page?

Falling back to raw text area.

```
n=int(input())
p=int(input())
a=[]
for i in range(1,n+1):
    if(n%i==0):
        a.append(i)
if(len(a)>=p):
    print(a[p-1])
else:
    print(0)
```

|         | Input | Expected | Got |
|---------|-------|----------|-----|
| 10<br>3 | 5     | 5        | 5   |
| 10<br>5 | 0     | 0        | 0   |
| 1<br>1  | 1     | 1        | 1   |

Passed all tests! ✅

**Correct**

Last updated: 2023-01-11 00:16:22

**Question 1**

Correct

Mark 1.00 out  
of 1.00[Flag  
question](#)

What is the output of the following

```
set1 = {10, 20, 30, 40, 50}  
set2 = {60, 70, 10, 30, 40, 80, 20, 50}  
  
print(set1.issubset(set2))  
print(set2.issuperset(set1))
```

a.

True

True



b.

False

False

c.

False

True

d.

True

False

Your answer is correct.

The correct answer is:

True

True

**Question 2**

Correct

Mark 1.00 out  
of 1.00[Flag](#)

What is the output of the given below program?

```
t = (58, 47, 36, 25, 14, 3)  
x = t[2:-1]  
print(x)
```

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**question**

- a.  
Error
- b.  
(36, 25, 14)
- c.  
 (58,47,36,25)
- d.  
(3,14,25)

Your answer is correct.

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

**Question 3**

Correct

Mark 1.00 out  
of 1.00

 [Flag](#)  
[question](#)

What is the output of the following `set` operation

```
sampleSet = {"Yellow", "Orange", "Black"}  
sampleSet.update(["Blue", "Green", "Red"])  
print(sampleSet)
```

- a.  
`{'Yellow', 'Orange', 'Red', 'Black', 'Green', 'Blue'}`
- b.  
`TypeError: update() doesn't allow list as a argument.`
- c.  
Name Error
- d.  
`{'Yellow', 'Orange', 'Black', ["Blue", "Green", "Red"]}`

Your answer is correct.

The correct answer is:

```
{'Yellow', 'Orange', 'Red', 'Black', 'Green', 'Blue'}
```

**Question 4**

Correct

Mark 1.00 out  
of 1.00

 [Flag](#)  
[question](#)

Find the output of the given Python program?

```
>>>t = (1, 2, 4, 3, 8, 9)  
>>>[t[i] for i in range(0, len(t), 2)]
```

- a.  
[1, 2, 4, 3, 8, 9]
- b.  
[1, 4, 8]
- c.  
□
- d.  
[2, 3, 9]
- e.  
()
- f.  
(1, 4, 8)

Your answer is correct.

The correct answer is:  
[1, 4, 8]

**Question 5**

Incorrect

Mark 0.00 out  
of 1.00

 [Flag question](#)

Find the output of the given Python program?

```
t = (11, 3)
```

```
x = 3 * t
```

```
print(x)
```

- a.  
[11,11,11,3,3,3]
- b.  
□
- c.  
(11,3,11,11,3,11,11,11,3)
- d.  
(11, 3, 11, 3, 11, 3)
- e.  
()
- f.  
(11,3)(11,3)(11,3)

Your answer is incorrect.

The correct answer is:  
(11, 3, 11, 3, 11, 3)

**Question 6**

Correct

Mark 1.00 out  
of 1.00

 [Flag question](#)

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.

(16,17,18)

b.

(16,17,18,19)



c.

Error

d.

(25,19,18,17)

Your answer is correct.

The correct answer is:

(16,17,18,19)

**Question 7**

Incorrect

Mark 0.00 out  
of 1.00

[Flag question](#)

What is the output of the given below program?

```
my_t1 = (1, 2, 3, 4)
my_t1.append( (5, 6, 7) )
print(len(my_t1))
```

a.

5



b.

Error

c.

1

d.

2

Your answer is incorrect.

The correct answer is:

Error

**Question 8**

Not answered

Marked out of  
1.00

[Flag question](#)

What is the output of the following code

```
aSet = {1, 'rec', ('cse', 'ece'), True}
print(aSet)
```

- a.  
{'rec', 1, ('cse', 'ece'), True}
- b.  
Error
- c.  
{'rec', 1, ('cse', 'ece')}
- d.  
{'rec', True, ('cse', 'ece')}

Your answer is incorrect.

The correct answer is:  
{'rec', 1, ('cse', 'ece')}

**Question 9**

Correct

Mark 1.00 out  
of 1.00

 [Flag question](#)

What will be printed when the following code executes?

```
a = ("Python Programming")
print type(a)
```

- a.  
<class 'int'>
- b.  
str
- c.  
<class 'str'>
- d.  
<class 'tuple'>

Your answer is correct.

The correct answer is:  
<class 'str'>

**Question 10**

Correct

Mark 1.00 out  
of 1.00

 [Flag question](#)

What will be the output of the below Python code?

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

- a.  
12
- b.  
Error
- c.  
 (12)
- d.  
 (55,78,64,25)

Your answer is correct.

The correct answer is:  
Error

### Question 11

Correct

Mark 1.00 out  
of 1.00

 [Flag question](#)

What is the output of the following code?

```
aTuple = (10, 20, 30, 40, 50, 60, 70, 80)
print(aTuple[2:5], aTuple[:4], aTuple[3:])
```

- a.  
 (10, 20, 30, 40) (40, 50, 60, 70, 80)
- b.  
 (30, 40, 50) (10, 20, 30, 40)
- c.  
 (30, 40, 50)(40, 50, 60, 70, 80)
- d.  
 (30, 40, 50) (10, 20, 30, 40) (40, 50, 60, 70, 80)

Your answer is correct.

The correct answer is:  
(30, 40, 50) (10, 20, 30, 40) (40, 50, 60, 70, 80)

### Question 12

Correct

Mark 1.00 out  
of 1.00

 [Flag question](#)

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.  
i,ii
- b.  
All of the above



- c.  
ii
- d.  
iii

Your answer is correct.

The correct answer is:

All of the above

**Question 13**

Incorrect

Mark 0.00 out  
of 1.00

[Flag  
question](#)

What is printed when the following code is run?

```
tup = ('30', '3', '2', '8')
print(sorted(tup,reverse = True))
```

- a.  
['30', '8', '3', '2']
- b.  
['2', '3', '8', '30']
- c.  
['2', '3', '30', '8']
- d.  
['8', '30', '3', '2']

Your answer is incorrect.

The correct answer is:

['8', '30', '3', '2']

**Question 14**

Incorrect

Mark 0.00 out  
of 1.00

[Flag  
question](#)

Select which is true for Python tuple?

- a. We can change the tuple once created
- b. A tuple maintains the order of items
- c. A tuple is unordered
- d. None of these

Your answer is incorrect.

The correct answer is: A tuple maintains the order of items

**Question 15**

Not answered

Marked out of  
1.00

 Flag  
question

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,iii
- b. i,ii
- c. iii,iv
- d. ii,iv

Your answer is incorrect.

The correct answer is:  
i,iii

Question 1

Correct

Mark 1.00 out of 1.00

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

Examples:

Input: str = "01010101010"

Output: Yes

Input: str = "REC101"

Output: No

For example:

| Input        | Result |
|--------------|--------|
| 01010101010  | Yes    |
| 010101 10101 | No     |

Answer: (penalty regime: 0 %)

```
1 s = input().strip()
2 binary_set = {'0', '1'}
3 string_set = set(s)
4 if string_set.issubset(binary_set)
5     print("Yes")
6 else:
7     print("No")
8
9
```

| Input        | Expected | Got |  |
|--------------|----------|-----|--|
| 01010101010  | Yes      | Yes |  |
| REC123       | No       | No  |  |
| 010101 10101 | No       | No  |  |

Passed all tests!

Correct

Marks for this submission: 1.00/1.00.

Question 2

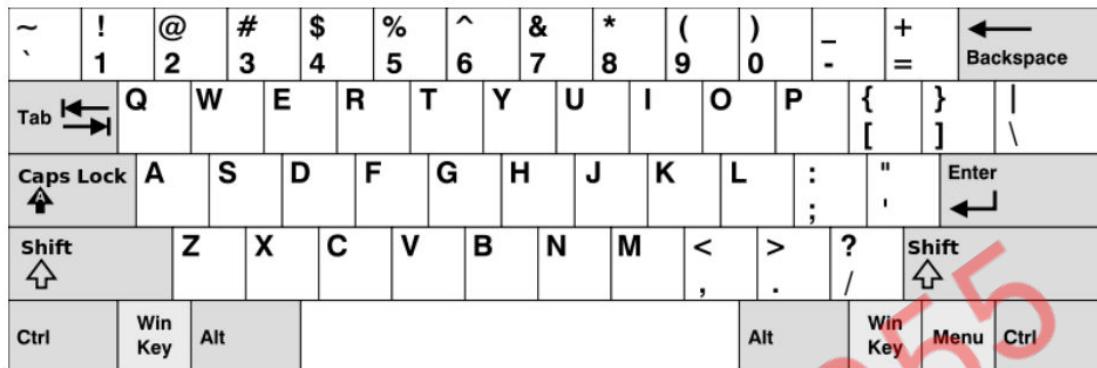
Correct

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      | Alaska |
| Hello  | Dad    |
| Alaska |        |
| Dad    |        |
| Peace  |        |
| 2      | adsdf  |
| adsfd  | afd    |
| afd    |        |

Answer: (penalty regime: 0 %)

```
1 n = int(input())
2 l = []
3 for i in range(n):
4     x = input()
5     l.append(x)
```

```

6 r1 = "qwertyuiop"
7 r2 = "asdfghjkl"
8 r3 = "zxcvbnm"
9 l1 = []
10 for i in l:
11     x = len(i)
12     a = i.lower()
13     count = 0
14     for j in a:
15         if j in r2:
16             count+=1
17     if count == len(i):
18         l1.append(i)
19 for i in l1:
20     print(i)
21 if len(l1) == 0:
22     print("No words")

```

|  | <i>Input</i>                         | <i>Expected</i> | <i>Got</i>    |  |
|--|--------------------------------------|-----------------|---------------|--|
|  | 4<br>Hello<br>Alaska<br>Dad<br>Peace | Alaska<br>Dad   | Alaska<br>Dad |  |
|  | 1<br>omk                             | No words        | No words      |  |
|  | 2<br>adsfd<br>afd                    | adsfd<br>afd    | adsfd<br>afd  |  |

Passed all tests!

Correct

Marks for this submission: 1.00/1.00.

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**Question 3**

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<br>ad                              | 1      |
| Faculty Upskilling in Python Programming<br>ak | 2      |

Answer: (penalty regime: 0 %)

```
1 l=input().split()
2 x=input()
3 count=0
4 for i in x:
5     for j in l:
6         if(i in j):
7             count+=1
8         break
9 print(count)
```

| Input  | Expected | Got |  |
|--|----------|-----|--|
| hello world<br>ad                              | 1        | 1   |  |
| Welcome to REC<br>e                            | 1        | 1   |  |
| Faculty Upskilling in Python Programming<br>ak | 2        | 2   |  |

**Question 4**

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<br>1 2 8 6 5<br>2 6 8 10  | 1 5 10<br>3      |
| 5 5<br>1 2 3 4 5<br>1 2 3 4 5 | NO SUCH ELEMENTS |

**Answer:** (penalty regime: 0 %)

```
1 sizes = input().split()  
2 size1 = int(sizes[0])  
3 size2 = int(sizes[1])  
4 arr1 = list(map(int, input().spl  
5 arr2 = list(map(int, input().spl  
6 set1 = set(arr1)  
7 set2 = set(arr2)  
8 unique_in_arr1 = set1 - set2  
9 unique_in_arr2 = set2 - set1  
10 result = list(unique_in_arr1) +  
11  
12 if result:  
13     result.sort()  
14     print(" ".join(map(str, resu  
15     print(len(result))  
16 else:  
17     print("NO SUCH ELEMENTS")  
18
```

| Input                         | Expected         | Got              |  |
|-------------------------------|------------------|------------------|--|
| 5 4<br>1 2 8 6 5<br>2 6 8 10  | 1 5 10<br>3      | 1 5 10<br>3      |  |
| 3 3<br>10 10 10<br>10 11 12   | 11 12<br>2       | 11 12<br>2       |  |
| 5 5<br>1 2 3 4 5<br>1 2 3 4 5 | NO SUCH ELEMENTS | NO SUCH ELEMENTS |  |

Passed all tests!

Correct

Marks for this submission: 1.00/1.00.

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**Question 5**

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 %)

```
1 | nums = list(map(int, input().split())
2 |
3 | seen = set()
4 | duplicate = None
5 |
6 | for num in nums:
7 |     if num in seen:
8 |         duplicate = num
9 |         break
10|     seen.add(num)
11|
12| print(duplicate)
13|
```

|  | 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 1**

Correct

Mark 1.00 out  
of 1.00

Flag  
question

Which of the following is an example of [dictionary](#)?

- a. None of the mentioned
- b.  $C = \{\}$
- c.  $D = \{ \}$
- d.  $L = [ ]$

The correct answer is:  $D = \{ \}$

**Question 2**

Incorrect

Mark 0.00 out  
of 1.00

Flag  
question

Which of the following is used to delete an element from [Dictionary](#)?

- a. remove
- b. pop
- c. None of the mentioned
- d. delete

The correct answer is: pop

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**Question 3**

Incorrect

Mark 0.00 out  
of 1.00 Flag  
question

Dictionary is a \_\_\_\_ data type.

- a. Sequence
- b. Mapping
- c. None of the mentioned
- d. Ordered

The correct answer is: Mapping

**Question 4**

Correct

Mark 1.00 out  
of 1.00 Flag  
question

To obtain the number of entries in dictionary which command is used?

- a. d.size()
- b. d.len()
- c. size(d)
- d. len(d)

Your answer is correct.

The correct answer is:

len(d)

**Question 5**

Correct

Mark 1.00 out  
of 1.00 Flag  
question

In dictionary Keys and values are separated by \_\_\_\_.

- a. Semicolon(;)
- b. Comma( ,)
- c. Colon (:)
- d. dot(.)

The correct answer is: Colon (😊)

**Question 6**

Correct

Mark 1.00 out  
of 1.00

Flag  
question

pop() function delete and \_\_\_\_\_ the element of dictionary.

- a. return
- b. display
- c. not return
- d. add

The correct answer is: return

**Question 7**

Correct

Mark 1.00 out  
of 1.00

Flag  
question

Keys in dictionary are \_\_\_\_\_.

- a. Immutable
- b. integers
- c. Mutable
- d. antique

The correct answer is: Immutable

**Question 8**

Correct

Mark 1.00 out  
of 1.00

Flag  
question

What is the value of counter after the code is run?

```
phrase = "Cheese!!!! Cheese!!!! Python is a programming  
Language.Python!!"
```

```
counter = 0  
letters = {}  
  
for word in phrase.split():  
    for letter in word:  
        letter = letter.lower()  
        if letter not in letters.keys():  
            letters[letter] = 0  
            letters[letter] += 1  
  
for key in letters.keys():  
    if letters[key] > 2:  
        counter += 1
```

```
print(counter)
```

Answer: 9



The correct answer is: 9

**Question 9**

Incorrect

Mark 0.00 out  
of 1.00

Flag  
question

The key-value pair in **dictionary** is called \_\_\_\_.

- a. item
- b. paired value
- c. pair item
- d. value

The correct answer is: item

**Question 10**

Correct

Mark 1.00 out  
of 1.00

Flag  
question

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. 4
- c. Invalid Syntax,Error
- d. A

Your answer is correct.

The correct answer is:

4

**Question 11**

Incorrect

Mark 0.00 out  
of 1.00

There is no index value in **dictionary** like we have in **List**.(T/F)

Flag question

- 
- a. False
- 
- b. True

The correct answer is: True

**Question 12**

Correct

Mark 1.00 out of 1.00

Flag question

In Python, Dictionaries are immutable

- Select one:
- True
  - False

The correct answer is 'False'.

**Question 13**

Correct

Mark 1.00 out of 1.00

Flag question

We can repeat the values of Key in Dictionary?

- 
- a. True
- 
- b. False

The correct answer is: True

**Question 14**

Correct

Mark 1.00 out of 1.00

Flag question

Traversing a dictionary can be done using \_\_\_\_.

- 
- a. None of the mentioned
- 
- b. jump statement
- 
- c. loop
- 
- d. if statement

The correct answer is: loop

**Question 15**

Incorrect

Only values (without keys) can be printed in **dictionary**?

Mark 0.00 out  
of 1.00

 Flag  
question

a.  
True

b.  
False

The correct answer is: True

[Finish review](#)

220901055

Question 1

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 %)

```
1 v letter_points = {  
2     "A": 1, "E": 1, "I": 1, "L":  
3     "D": 2, "G": 2,  
4     "B": 3, "C": 3, "M": 3, "P":  
5     "F": 4, "H": 4, "V": 4, "W":  
6     "K": 5,  
7     "J": 8, "X": 8,  
8     "Q": 10, "Z": 10  
9 }  
10  
11 word = input().upper()  
12 score = sum(letter_points[letter]  
13 print(f"{word} is worth {score}  
14
```

|                                     | <b>Input</b> | <b>Expected</b>        | <b>Got</b>             |                                     |
|-------------------------------------|--------------|------------------------|------------------------|-------------------------------------|
| <input checked="" type="checkbox"/> | GOD          | GOD is worth 5 points. | GOD is worth 5 points. | <input checked="" type="checkbox"/> |
| <input checked="" type="checkbox"/> | REC          | REC is worth 5 points. | REC is worth 5 points. | <input checked="" type="checkbox"/> |

Passed all tests! 

Correct

Marks for this submission: 1.00/1.00.

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Question 2

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 %)

1 | `from collections import defaultdict`  
2 |

```
3 n = int(input())
4 votes = [input() for _ in range(
5
6 vote_count = defaultdict(int)
7 for name in votes:
8     vote_count[name] += 1
9
10 max_votes = max(vote_count.value
11 candidates = [name for name, vot
12 print(min(candidates))
13
```

|   | Input  | Expected | Got   |       |
|---|--|----------|-------|-------|
| 1 | 10<br>John<br>John<br>Johny<br>Jamie<br>Jamie<br>Johny<br>Jack<br>Johny<br>Johny<br>Jackie | Johny    | Johny | Johny |
| 2 | 6<br>Ida<br>Ida<br>Ida<br>Kiruba<br>Kiruba<br>Kiruba                                       | Ida      | Ida   | Ida   |

Passed all tests!

Correct

Marks for this submission: 1.00/1.00.

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Question 3

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 | sweet sour |
| this apple is sour  |            |

Answer: (penalty regime: 0 %)

```
1 def uncommonWords(s1, s2):
2     words_count = {}
3     for word in s1.split():
4         words_count[word] = word
5     for word in s2.split():
6         words_count[word] = word
7     uncommon_words = [word for w
8         return ' '.join(uncommon_wor
9
10    s1 = input()
11    s2 = input()
12    result = uncommonWords(s1, s2)
13    print(result)
14
```

|   | Input                                     | Expected   | Got        |   |
|---|---|------------|------------|---|
| 1 | this apple is sweet<br>this apple is sour | sweet sour | sweet sour | 1 |
| 2 | apple apple<br>banana                     | banana     | banana     | 1 |

Passed all tests! 1

Correct

Marks for this submission: 1.00/1.00.

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**Question 4**

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  | Gfg 17  |
| Best 7 6 5 | Best 18 |

**Answer:** (penalty regime: 0 %)

```
1 n = int(input())
2 test_dict = {}
3
4 for _ in range(n):
5     key, *values = input().split()
6     test_dict[key] = list(map(int, values))
7
8 sorted_dict = {key: sum(values) for key, values in test_dict.items()}
9
10 for key, value in sorted_dict.items():
11     print(f'{key} {value}')
```

|   | <b>Input</b>                 | <b>Expected</b>   | <b>Got</b>        |   |
|---|------------------------------|-------------------|-------------------|---|
| 1 | 2<br>Gfg 6 7 4<br>Best 7 6 5 | Gfg 17<br>Best 18 | Gfg 17<br>Best 18 | 1 |
| 2 | 2<br>Gfg 6 6<br>Best 5 5     | Best 10<br>Gfg 12 | Best 10<br>Gfg 12 | 1 |

Passed all tests! 1

Correct

Marks for this submission: 1.00/1.00.

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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 has 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               | Ram       |
| James 67 89 56  | James Ram |
| Lalith 89 45 45 | Lalith    |
| Ram 89 89 89    | Lalith    |
| Sita 70 70 70   |           |

Answer: (penalty regime: 0 %)

```
1 # Get the number of students
2 n = int(input())
3
4 # Create an empty dictionary to
5 students = {}
6
7 # Iterate over each student's info
8 for _ in range(n):
9     student_info = input().split()
10    name = student_info[0]
11    scores = {'test': int(studen
12    students[name] = scores
```

```

13
14 # Calculate the average score for each student
15 def calculate_average(scores):
16     return sum(scores.values()) / len(scores)
17
18 # Initialize variables to store
19 highest_avg_students = []
20 highest_avg_score = float('-inf')
21 lowest_avg_students = []
22 lowest_avg_score = float('inf')
23 highest_assignment_students = []
24 highest_assignment_score = float('-inf')
25 lowest_lab_students = []
26 lowest_lab_score = float('inf')
27
28 # Iterate over the students to calculate their average score
29 for student, scores in students.items():
30     avg_score = calculate_average(scores)
31
32     # Check for highest average
33     if avg_score > highest_avg_score:
34         highest_avg_score = avg_score
35         highest_avg_students = [student]
36     elif avg_score == highest_avg_score:
37         highest_avg_students.append(student)
38
39     # Check for lowest average
40     if avg_score < lowest_avg_score:
41         lowest_avg_score = avg_score
42         lowest_avg_students = [student]
43     elif avg_score == lowest_avg_score:
44         lowest_avg_students.append(student)
45
46     # Check for highest assignment score
47     if scores['assignment'] > highest_assignment_score:
48         highest_assignment_score = scores['assignment']
49         highest_assignment_student = student
50     elif scores['assignment'] == highest_assignment_score:
51         highest_assignment_students.append(student)
52

```

|   | Input   | Expected                                   | Got  |
|---|---|--|--|
| 1 | 4<br>James 67 89 56<br>Lalith 89 45 45<br>Ram 89 89 89<br>Sita 70 70 70 | Ram<br>James Ram<br>Lalith<br>Lalith       | Ram<br>James Ram<br>Lalith<br>Lalith       |
| 2 | 3<br>Raja 95 67 90<br>Aarav 89 90 90<br>Shadhana 95 95 91               | Shadhana<br>Shadhana<br>Aarav Raja<br>Raja | Shadhana<br>Shadhana<br>Aarav Raja<br>Raja |

Passed all tests!

Correct

Marks for this submission: 1.00/1.00.

[← Week8\\_MCQ](#)

Jump to...

[Functions →](#)

**Question 1**

Correct

Mark 1.00 out  
of 1.00 Flag  
question

The return statement in function is used to \_\_\_\_.

- a. None of the mentioned
- b. return value
- c. Both return value and returns the control to the calling function
- d. returns the control to the calling function

The correct answer is: Both return value and returns the control to the calling function

**Question 2**

Correct

Mark 1.00 out  
of 1.00 Flag  
question**Python function always returns a value**

Select one:

- True
- False

The correct answer is 'True'.

**Question 3**

Correct

Mark 1.00 out  
of 1.00 Flag  
question

Write the output of : print(min(tuple("computer")))

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- a. o
- b. t
- c. u
- d. c

The correct answer is: c

**Question 4**

Incorrect

Mark 0.00 out  
of 1.00

 [Flag question](#)

The function can be called in the program by writing function name followed by \_\_\_\_.

- a. None of the mentioned
- b. { }
- c. [ ]
- d. @

The correct answer is: @

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**Question 5**

Correct

Mark 1.00 out  
of 1.00

 [Flag question](#)

cal(n1) : What is n1?

- a. None of the mentioned
- b. Keyword
- c. Parameter
- d. Argument

The correct answer is: Argument

**Question 6**

Correct

**What is the output of the following function call?**

Mark 1.00 out  
of 1.00  
[Flag](#)  
question

```
def fun1(num):  
    return num + 25  
fun1(5)  
print(num)
```

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



Your answer is correct.

The correct answer is:  
NameError

Question 7  
Incorrect  
Mark 0.00 out  
of 1.00  
[Flag](#)  
question

```
def cal(n1) : What is n1?
```

- a.  
Argument
- b.  
Parameter
- c.  
None of the mentioned
- d.  
Keyword

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The correct answer is: Parameter

Question 8  
Correct  
Mark 1.00 out  
of 1.00  
[Flag](#)  
question

In a program, a function can be called \_\_\_\_ times.

- a.  
5
- b.  
2
- c.  
Multiple times
- d.  
3

The correct answer is: Multiple times

**Question 9**

Correct

Mark 1.00 out  
of 1.00

 Flag  
question

Which of the following are advantages of using function in program?

- a.  
It increases reusability.
- b.  
It increases readability of program.
- c.  
All of the mentioned
- d.  
It makes debugging easier.

The correct answer is: All of the mentioned

**Question 10**

Correct

Mark 1.00 out  
of 1.00

 Flag  
question

\_\_\_\_\_ can be defined as a named group of instructions that accomplish a specific task when it is invoked/called.

- a.  
Token
- b.  
Function
- c.  
Operator
- d.  
Datatype

The correct answer is: Function

**Question 11**

Correct

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

Mark 1.00 out  
of 1.00  
[Flag](#)  
question

```
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. None of the mentioned
- c. The numbers are equal
- d. 2

Your answer is correct.

The correct answer is:

3

**Question 12**  
Correct  
Mark 1.00 out  
of 1.00  
[Flag](#)  
question

**Which one of the following is the correct way of calling a function?**

- a. ret function\_name()
- b. function function\_name()
- c. call function\_name()
- d. function\_name()

Your answer is correct.

The correct answer is:  
function\_name()

Question 13  
Not answered  
Marked out of  
1.00  
[Flag](#)

Choose the incorrect statement.

question

- a.  
None of the mentioned
- b.  
`print(pow(2.3, 3.2))`
- c.  
`print(pow(2, 3))`
- d.  
`print(pow(2, 3, 2))`

The correct answer is: None of the mentioned

Question 14

Correct

Mark 1.00 out  
of 1.00

 Flag  
question

Which of the following is not the scope of variable?

- a.  
None of the mentioned
- b.  
Global
- c.  
Local
- d.  
Outside

The correct answer is: Outside

Question 15

Not answered

Marked out of  
1.00

 Flag  
question

Fill in the line of the following Python code for calculating the factorial of a number?

```
def factorial? :  
    if (n==1 or n==0):  
        return 1  
    else:  
        return ??  
num = 5;  
print("number : ",num)  
print("Factorial : ",factorial(num))
```

- a.  
fact~~o~~ \*fact(n-1)
- b.  
n\*(n-1)
- c.  
(n-1)\*(n-2)
- d.  
(n \* factorial(n - 1))

Your answer is incorrect.

The correct answer is:  
(n \* factorial(n - 1))

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**Question 1**

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

```
1 def differenceSum(n):  
2     nu=str(n)  
3     even=sum(int(nu[i]) for i in ra  
4     odd=sum(int(nu[i]) for i in ran  
5     return abs(even-odd)  
6 differenceSum(1453)  
7
```

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|   | Test                       | Expected | Got |   |
|---|----------------------------|----------|-----|---|
| 1 | print(differenceSum(1453)) | 1        | 1   | 1 |

Passed all tests! 1

Correct

Marks for this submission: 1.00/1.00.

**Question 2**

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](#)

```
1 def abundant(num):
2     divisor_sum = 0
3     for i in range(1, num):
4         if num % i == 0:
5             divisor_sum += i
6     if divisor_sum > num:
7         return "Yes"
8     else:
9         return "No"
10
11 try:
12     while True:
13         num = int(input())
14         print(abundant(num))
15 except EOFError:
16     pass
17
```

|                                     | Test                | Expected | Got |                                     |
|-------------------------------------|---------------------|----------|-----|-------------------------------------|
| <input checked="" type="checkbox"/> | print(abundant(12)) | Yes      | Yes | <input checked="" type="checkbox"/> |
| <input checked="" type="checkbox"/> | print(abundant(13)) | No       | No  | <input checked="" type="checkbox"/> |

Passed all tests! 

Correct

Marks for this submission: 1.00/1.00.

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**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

```
1 def checkUgly(n):
2     if n <= 0:
3         return "not ugly"
4     while n % 2 == 0:
5         n //= 2
6     while n % 3 == 0:
7         n //= 3
8     while n % 5 == 0:
9         n //= 5
10    if n == 1:
11        return "ugly"
12    else:
13        return "not ugly"
```

|   | Test                 | Expected | Got      |   |
|---|----------------------|----------|----------|---|
| 1 | print(checkUgly(6))  | ugly     | ugly     | 1 |
| 2 | print(checkUgly(21)) | not ugly | not ugly | 1 |

Passed all tests! 1

Correct

Marks for this submission: 1.00/1.00.

**Question 4**

Correct

Mark 1.00 out of 1.00

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

For example, 5 is an automorphic number because  $5 \times 5 = 25$ . The last digit is 5 which same as the given number.

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

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

Input Format:

Take a Integer from Stdin Output Format: Print Automorphic if given number is Automorphic number,otherwise Not Automorphic Example

input: 5 Output: Automorphic Example input: 25 Output: Automorphic Example input: 7 Output: Not Automorphic

**For example:**

| Test                  | Result      |
|-----------------------|-------------|
| print(automorphic(5)) | Automorphic |

**Answer:** (penalty regime: 0 %)

Reset answer

```
1 def is_automorphic(num):
2     square = num ** 2
3     return str(square).endswith(
4
5 def automorphic(num):
6     if num < 0:
7         return "Invalid input"
8     elif is_automorphic(num):
9         return "Automorphic"
10    else:
11        return "Not Automorphic"
12
13 # Read input from stdin
14 try:
15     num = int(input())
16     print(automorphic(num))
17 except ValueError:
18     print("Invalid input")
19 except EOFError:
20     pass
21
22
```

|   | Test                  | Expected        | Got             |   |
|---|-----------------------|-----------------|-----------------|---|
| 1 | print(automorphic(5)) | Automorphic     | Automorphic     | 1 |
| 2 | print(automorphic(7)) | Not Automorphic | Not Automorphic | 1 |

Passed all tests! 1

Correct

Marks for this submission: 1.00/1.00.

**Question 5**

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

$1 \leq \text{orderValue} \leq 10e100000$

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 |
|--|--------|
| <code>print(christmasDiscount(578))</code> | 12     |

Answer: (penalty regime: 0 %)

Reset answer

```
1 def is_prime(num):
2     if num < 2:
3         return False
4     for i in range(2, int(num ** 0.5) + 1):
5         if num % i == 0:
6             return False
7     return True
8
9 def christmasDiscount(total_bill):
10    discount_value = 0
11    for digit in str(total_bill):
12        if is_prime(int(digit)):
13            discount_value += int(digit)
14    return discount_value
15
16 try:
17     while True:
18         total_bill = int(input())
19         discount = christmasDiscount(total_bill)
20         print(discount)
21 except EOFError:
22     pass # Exit gracefully when
23
```

|   | Test                                       | Expected | Got |    |
|---|--|----------|-----|----|
| 1 | <code>print(christmasDiscount(578))</code> | 12       | 12  | 12 |

Passed all tests! ✅

Correct

Marks for this submission: 1.00/1.00.

← Week9\_MCQ

Jump to...

Searching →

220901055

**Question 1**

Correct

Mark 1.00 out  
of 1.00

 Flag  
question

Very slow way of sorting is\_\_\_\_\_

- a. Insertion sort
- b. Quick sort

- c. Heap sort

- d. Bubble sort

Your answer is correct.

The correct answer is:

Insertion sort

**Question 2**

Correct

Mark 1.00 out  
of 1.00

 Flag  
question

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

220901055

a.  
Complexity

b.  
Insertion

c.  
Selection

d.  
Bubble



Your answer is correct.

The correct answer is: Bubble

**Question 3**

Correct

Mark 1.00 out  
of 1.00

[Flag  
question](#)

Which of the following is not an in-place sorting algorithm?

a.  
Heap sort

b.  
Selection sort

c.  
Merge sort



d.  
Quick sort

Your answer is correct.

The correct answer is:  
Merge sort

**Question 4**

Correct

Mark 1.00 out  
of 1.00

[Flag  
question](#)

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

- a.  
Hash
- b.  
Linear
- c.  
Both (1) & (3)
- d.  
Binary



Your answer is correct.

The correct answer is:  
Binary

**Question 5**

Correct

Mark 1.00 out  
of 1.00

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question](#)

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

- a.  
[Searching](#)
- b.  
[Merging](#)
- c.  
[Sorting](#)
- d.  
[Rearranging](#)

Your answer is correct.

The correct answer is: Sorting

**Question 6**

Correct

Mark 1.00 out  
of 1.00

[Flag  
question](#)

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

a.

89 and 99

b.

90 and 94

c.

90 and 99

d.

89 and 94

Your answer is correct.

The correct answer is:

90 and 99

**Question 7**

Incorrect

Mark 0.00 out  
of 1.00

 [Flag question](#)

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.

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

b.

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

c.

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

d.

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

Your answer is incorrect.

The correct answer is:

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

**Question 8**

Not answered

Marked out of  
1.00

 [Flag question](#)

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

- a.  
There must be a mechanism to access middle element directly
- b.  
Requirement of sorted array is expensive when a lot of insertion and deletions are needed
- c.  
Must use a sorted array
- d.  
Binary search algorithm is not efficient when the data elements more than 1500

Your answer is incorrect.

The correct answer is:

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

**Question 9**

Incorrect

Mark 0.00 out  
of 1.00

[Flag  
question](#)

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.  
90 and 99
- d.  
94 and 99

Your answer is incorrect.

The correct answer is:

90 and 99

**Question 10**

Correct

Mark 1.00 out  
of 1.00

[Flag  
question](#)

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

a.

Complexity



b.

Sorting

c.

Merging

d.

Searching

Your answer is correct.

The correct answer is:

Complexity

**Question 11**

Correct

Mark 1.00 out  
of 1.00

[Flag  
question](#)

In \_\_\_\_\_ checks the elements of a [list](#), one at a time, without skipping any element.

a.

Both (1) & (3)

b.

Hash search

c.

Linear search



d.

Binary search

Your answer is correct.

The correct answer is:

Linear search

**Question 12**

Correct

Mark 1.00 out  
of 1.00

[Flag  
question](#)

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 preserve 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 13**

Correct

Mark 1.00 out  
of 1.00

 [Flag question](#)

\_\_\_\_\_ is putting an element in the appropriate place in a sorted [list](#) yields a larger sorted order [list](#).

- a.  
Insertion
- b.  
Selection
- c.  
Extraction
- d.  
Distribution

Your answer is correct.

The correct answer is:

Insertion

**Question 14**

Incorrect

Mark 0.00 out  
of 1.00

 [Flag question](#)

The average case occurs in the linear search algorithm

- a. When the item is the last element in the array
- b. When the item is not the array at all
- c. Item is the last element in the array or item is not there at all
- d. When the item is somewhere in the middle of the array

Your answer is incorrect.

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

 Flag  
question

Algorithm design technique used in merge sort algorithm is

- a. Dynamic programming
- b. Greedy method
- c. Divide and conquer
- d. Backtracking

Your answer is correct.

The correct answer is:

Divide and conquer

**Finish review**

**Question 1**

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

$A[i-1] \leq A[i] \geq A[i+1]$  for middle elements.  $[0 < i < n-1]$

$A[i-1] \leq A[i]$  for last element  $[i=n-1]$

$A[i] \geq A[i+1]$  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 8   |
| 12 3 6 8 |        |

**Answer:** (penalty regime: 0 %)

```
1 def find_peak_elements(n, A):
2     peaks = []
3
4     if n == 1:
5         peaks.append(A[0])
6     else:
7         # Check first element
8         if A[0] >= A[1]:
9             peaks.append(A[0])
10
11        # Check middle elements
12        for i in range(1, n - 1):
13            if A[i] >= A[i - 1]:
14                peaks.append(A[i])
15
16        # Check last element
17        if A[n - 1] >= A[n - 2]:
18            peaks.append(A[n - 1])
19
20    return peaks
21
22 # Reading input
23 n = int(input())
24 A = list(map(int, input().split(
25
26 # Find peaks
27 peaks = find_peak_elements(n, A)
28
```

```
29 | # Print the output
30 | print(" ".join(map(str, peaks)))
31 |
```

|   | <b>Input</b>         | <b>Expected</b> | <b>Got</b> |   |
|---|----------------------|-----------------|------------|---|
| 1 | 7<br>15 7 10 8 9 4 6 | 15 10 9 6       | 15 10 9 6  | 1 |
| 2 | 4<br>12 3 6 8        | 12 8            | 12 8       | 2 |

Passed all tests! 1

Correct

Marks for this submission: 1.00/1.00.

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**Question 2**

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<sup>6</sup>.

**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<br>3 2 1     | List is sorted in 3 swaps.<br>First Element: 1<br>Last Element: 3 |
| 5<br>1 9 2 8 4 | List is sorted in 4 swaps.<br>First Element: 1<br>Last Element: 9 |

**Answer:** (penalty regime: 0 %)

```
1 | def bubble_sort(a):  
2 |     n = len(a)  
3 |     num_swaps = 0  
4 |
```

```

5    for i in range(n):
6        for j in range(0, n - i):
7            if a[j] > a[j + 1]:
8                a[j], a[j + 1] =
9                num_swaps += 1
10
11    return num_swaps, a[0], a[-1]
12
13 # Reading input
14 n = int(input())
15 a = list(map(int, input().split(
16
17 # Perform bubble sort
18 num_swaps, first_element, last_e
19
20 # Print the output
21 print(f"List is sorted in" ,num_
22 print(f"First Element:" ,first_el
23 print(f"Last Element:" ,last_el
24

```

|   | Input     | Expected  | Got   |  |
|---|-----------|---|---|--|
| 3 | 3 2 1     | List is sorted in 3 swaps.<br>First Element: 1<br>Last Element: 3 | List is sorted in 3 swaps.<br>First Element: 1<br>Last Element: 3 |  |
| 5 | 1 9 2 8 4 | List is sorted in 4 swaps.<br>First Element: 1<br>Last Element: 9 | List is sorted in 4 swaps.<br>First Element: 1<br>Last Element: 9 |  |

Passed all tests! ✅

Correct

Marks for this submission: 1.00/1.00.

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**Question 3**

Correct

Mark 1.00 out of 1.00

Write a Python program for binary search.

For example:

| Input             | Result |
|-------------------|--------|
| 1,2,3,5,8<br>6    | False  |
| 3,5,9,45,42<br>42 | True   |

**Answer:** (penalty regime: 0 %)

```
1 n=input()
2 k=(input())
3 if k in n:
4     print(True)
5 else:
6     print(False)
```

|   | Input                | Expected | Got   |   |
|---|----------------------|----------|-------|---|
| 1 | 1,2,3,5,8<br>6       | False    | False | 1 |
| 2 | 3,5,9,45,42<br>42    | True     | True  | 2 |
| 3 | 52,45,89,43,11<br>11 | True     | True  | 3 |

Passed all tests! 1

Correct

Marks for this submission: 1.00/1.00.

**Question 4**

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<br>3 4 8 7 1 2 | 1 2 3 4 7 8 |
| 5<br>4 5 2 3 1   | 1 2 3 4 5   |

**Answer:** (penalty regime: 0 %)

```
1 def bubble_sort(arr):
2     n = len(arr)
3     for i in range(n):
4         # Flag to check if any s
5         swapped = False
6         for j in range(0, n-i-1):
7             if arr[j] > arr[j+1]:
8                 # Swap elements
9                 arr[j], arr[j+1]
10                swapped = True
11            # If no swaps occurred,
12            if not swapped:
13                break
14        return arr
15
16 # Read input
17 n = int(input())
18 arr = list(map(int, input().spli
19
20 # Sort the array using bubble so
21 sorted_arr = bubble_sort(arr)
22
23 # Print the sorted array
24 for num in sorted_arr:
25     print(num, end=" ")
26
```

|   | Input             | Expected     | Got          |   |
|---|-------------------|--------------|--------------|---|
| 1 | 6<br>3 4 8 7 1 2  | 1 2 3 4 7 8  | 1 2 3 4 7 8  | 1 |
| 2 | 6<br>9 18 1 3 4 6 | 1 3 4 6 9 18 | 1 3 4 6 9 18 | 1 |
| 3 | 5<br>4 5 2 3 1    | 1 2 3 4 5    | 1 2 3 4 5    | 1 |

**Question 5**

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<br>8 9 12 15 3<br>11      | Yes    |
| 6<br>2 9 21 32 43 43 1<br>4 | No     |

Answer: (penalty regime: 0 %)

```
1 def has_pair_with_sum(lst, k):
2     seen = set()
3     for num in lst:
4         if k - num in seen:
5             return "Yes"
6         seen.add(num)
7     return "No"
8
9 # Read input
10 n = int(input())
11 lst = list(map(int, input().split()))
12 k = int(input())
13
14 # Check if there exist two numbers
15 print(has_pair_with_sum(lst, k))
16
```

|   | <b>Input</b>                | <b>Expected</b> | <b>Got</b> |   |
|---|-----------------------------|-----------------|------------|---|
| 1 | 5<br>8 9 12 15 3<br>11      | Yes             | Yes        | 1 |
| 2 | 6<br>2 9 21 32 43 43 1<br>4 | No              | No         | 1 |
| 3 | 6<br>13 42 31 4 8 9<br>17   | Yes             | Yes        | 1 |

Passed all tests! 1

Correct

Marks for this submission: 1.00/1.00.

[← Week10\\_MCQ](#)

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