|  |  |
| --- | --- |
| **Started on** | Wednesday, 3 April 2024, 1:04 PM |
| **State** | Finished |
| **Completed on** | Wednesday, 3 April 2024, 1:42 PM |
| **Time taken** | 38 mins 15 secs |
| **Marks** | 6.00/6.00 |
| **Grade** | **100.00** out of 100.00 |

Top of Form

Question **1**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Write a program to convert [strings](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=98) to an integer and float and display its type.

Sample Input:

10

10.9

Sample Output:

10,<class 'int'>

10.9,<class 'float'>

**For example:**

| **Input** | **Result** |
| --- | --- |
| 10  10.9 | 10,<class 'int'>  10.9,<class 'float'> |

Answer:(penalty regime: 0 %)

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

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

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

Feedback

|  | **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

Question text

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 %)

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

Feedback

|  | **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

Question text

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

Input Format:

The first line contains the Rs X

The second line contains Rs Y

The third line contains Rs Z

Sample Input:

10000

250

15000

Sample Output:

46.34 is the gain percent.

**For example:**

| **Input** | **Result** |
| --- | --- |
| 45500  500  60000 | 30.43 is the gain percent. |

Answer:(penalty regime: 0 %)

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

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 10000  250  15000 | 46.34 is the gain percent. | 46.34 is the gain percent. |  |
|  | 45500  500  60000 | 30.43 is the gain percent. | 30.43 is the gain percent. |  |
|  | 5000  0  7000 | 40.00 is the gain percent. | 40.00 is the gain percent. |  |
|  | 12500  5000  18000 | 2.86 is the gain percent. | 2.86 is the gain percent. |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

Sample Input

10

20

Sample Output

Your total refund will be $6.00.

**For example:**

| **Input** | **Result** |
| --- | --- |
| 20  20 | Your total refund will be $7.00. |

Answer:(penalty regime: 0 %)

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

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **6**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

**Hint:**

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

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

number = -20

absolute\_number = abs(number)

print(absolute\_number)

# Output: 20

**Sample Input:**

450

**Sample Output:**

weekdays 10.38

weekend 0.38

**For example:**

| **Input** | **Result** |
| --- | --- |
| 450 | weekdays 10.38  weekend 0.38 |

Answer:(penalty regime: 0 %)

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

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 450 | weekdays 10.38  weekend 0.38 | weekdays 10.38  weekend 0.38 |  |
|  | 500 | weekdays 10.00  weekend 0.00 | weekdays 10.00  weekend 0.00 |  |
|  | 10000 | weekdays 83.08  weekend 73.08 | weekdays 83.08  weekend 73.08 |  |
|  | 6789 | weekdays 58.38  weekend 48.38 | weekdays 58.38  weekend 48.38 |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

|  |  |
| --- | --- |
| **tarted on** | Tuesday, 26 March 2024, 8:55 PM |
| **State** | Finished |
| **Completed on** | Wednesday, 3 April 2024, 2:58 PM |
| **Time taken** | 7 days 18 hours |
| **Overdue** | 5 days 18 hours |
| **Marks** | 19.00/19.00 |
| **Grade** | **100.00** out of 100.00 |

Top of Form

Question **1**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=89) or arithmetic [operators](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=89) to solve the problem, not anything else.

Hint:

Use ASCII values of C and D.

**Input Format:**

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

**Output Format:**

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

**Input 1:**

0

**Output 1:**

C

**Input 2:**

1

**Output 1:**

D

**For example:**

| **Input** | **Result** |
| --- | --- |
| 0 | C |

Answer:(penalty regime: 0 %)

1

2

3

4

5

a=int(input())

if a==0:

print("C")

elif a==1:

print("D")

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 10.00 out of 10.00

Flag question

Question text

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](https://www.rajalakshmicolleges.net/moodle/mod/quiz/view.php?id=5127) Input:

10

20

[Sample](https://www.rajalakshmicolleges.net/moodle/mod/quiz/view.php?id=5127) Output:

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

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

a=int(input())

b=int(input())

c=a\*75

d=b\*112

e=c+d

print("The total weight of all these widgets and gizmos is",e,"grams.")

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 10.00/10.00.

Question **3**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

 Input Given:

N-No of friends

P1,P2,P3 AND P4-No of chocolates

OUTPUT:

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

SAMPLE INPUT AND OUTPUT:

5

25

12

10

9

OUTPUT

True False True False

**For example:**

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

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

a=int(input())

b=int(input())

c=int(input())

d=int(input())

e=int(input())

if b%a==0:

print("True",end=" ")

else:

print("False",end=" ")

if c%a==0:

print("True",end=" ")

else:

print("False",end=" ")

if d%a==0:

print("True",end=" ")

else:

print("False",end=" ")

if e%a==0:

print("True",end=" ")

else:

print("false",end=" ")

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

1

2

3

a=int(input())

b=(bin(a)).count("1")

print(b)

Feedback

|  | **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 **5**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

**For example:**

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

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

a=int(input())

b=a+(a\*0.04)

print(f'Balance as of end of Year 1: ${b:.2f}.')

d=b+(b\*0.04)

print(f'Balance as of end of Year 2: ${d:.2f}.')

f=d+(d\*0.04)

print(f'Balance as of end of Year 3: ${f:.2f}.')

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 10000 | Balance as of end of Year 1: $10400.00.  Balance as of end of Year 2: $10816.00.  Balance as of end of Year 3: $11248.64. | Balance as of end of Year 1: $10400.00.  Balance as of end of Year 2: $10816.00.  Balance as of end of Year 3: $11248.64. |  |
|  | 20000 | Balance as of end of Year 1: $20800.00.  Balance as of end of Year 2: $21632.00.  Balance as of end of Year 3: $22497.28. | Balance as of end of Year 1: $20800.00.  Balance as of end of Year 2: $21632.00.  Balance as of end of Year 3: $22497.28. |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **6**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Note:

Dont use if-else. [Operators](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=89) alone must be used .

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

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

 Input Format:

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

 Output Format:

 Display True(IF ELIGIBLE)

Display False (if not eligible)

Sample Input

19

45

Sample Output

True

**For example:**

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

Answer:(penalty regime: 0 %)

1

2

3

a=int(input())

b=int(input())

print(a>=18 and b>40)

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 19  45 | True | True |  |
|  | 18  40 | False | False |  |
|  | 18  42 | True | True |  |
|  | 16  45 | False | False |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **7**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

 IF Lokpaul wins print true, otherwise false.

Sample Input

10

Sample Output

True

Explanation:

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

**For example:**

| **Input** | **Result** |
| --- | --- |
| 101 | False |

Answer:(penalty regime: 0 %)

1

2

a=int(input())

print(a%2==0)

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 56 | True | True |  |
|  | 101 | False | False |  |
|  | -1 | False | False |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **8**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

**Input format:**

Line 1 has the total number of weapons

Line 2 has the total number of Soldiers.

**Output  Format:**

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

Sample Input:

32

43

Sample Output:'

False

**For example:**

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

Answer:(penalty regime: 0 %)

1

2

3

a=int(input())

b=int(input())

print(a%3==0 and b%2==0)

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 32  43 | False | False |  |
|  | 273  7890 | True | True |  |
|  | 800  4590 | False | False |  |
|  | 6789  32996 | True | True |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **9**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

1

2

3

4

5

a=int(input())

b=a\*0.05

c=a\*0.18

d=a+b+c

print("The tax is",f'{b:.2f}',"and the tip is",f'{c:.2f},',"making the total",f'{d:.2f}')

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **10**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

1

2

a=input()

print(a[-1])

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 197 | 7 | 7 |  |
|  | -197 | 7 | 7 |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

|  |  |
| --- | --- |
| **tarted on** | Tuesday, 26 March 2024, 8:55 PM |
| **State** | Finished |
| **Completed on** | Wednesday, 3 April 2024, 2:58 PM |
| **Time taken** | 7 days 18 hours |
| **Overdue** | 5 days 18 hours |
| **Marks** | 19.00/19.00 |
| **Grade** | **100.00** out of 100.00 |

Top of Form

Question **1**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=89) or arithmetic [operators](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=89) to solve the problem, not anything else.

Hint:

Use ASCII values of C and D.

**Input Format:**

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

**Output Format:**

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

**Input 1:**

0

**Output 1:**

C

**Input 2:**

1

**Output 1:**

D

**For example:**

| **Input** | **Result** |
| --- | --- |
| 0 | C |

Answer:(penalty regime: 0 %)

1

2

3

4

5

a=int(input())

if a==0:

print("C")

elif a==1:

print("D")

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 10.00 out of 10.00

Flag question

Question text

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](https://www.rajalakshmicolleges.net/moodle/mod/quiz/view.php?id=5127) Input:

10

20

[Sample](https://www.rajalakshmicolleges.net/moodle/mod/quiz/view.php?id=5127) Output:

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

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

a=int(input())

b=int(input())

c=a\*75

d=b\*112

e=c+d

print("The total weight of all these widgets and gizmos is",e,"grams.")

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 10.00/10.00.

Question **3**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

 Input Given:

N-No of friends

P1,P2,P3 AND P4-No of chocolates

OUTPUT:

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

SAMPLE INPUT AND OUTPUT:

5

25

12

10

9

OUTPUT

True False True False

**For example:**

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

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

a=int(input())

b=int(input())

c=int(input())

d=int(input())

e=int(input())

if b%a==0:

print("True",end=" ")

else:

print("False",end=" ")

if c%a==0:

print("True",end=" ")

else:

print("False",end=" ")

if d%a==0:

print("True",end=" ")

else:

print("False",end=" ")

if e%a==0:

print("True",end=" ")

else:

print("false",end=" ")

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

1

2

3

a=int(input())

b=(bin(a)).count("1")

print(b)

Feedback

|  | **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 **5**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

**For example:**

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

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

a=int(input())

b=a+(a\*0.04)

print(f'Balance as of end of Year 1: ${b:.2f}.')

d=b+(b\*0.04)

print(f'Balance as of end of Year 2: ${d:.2f}.')

f=d+(d\*0.04)

print(f'Balance as of end of Year 3: ${f:.2f}.')

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 10000 | Balance as of end of Year 1: $10400.00.  Balance as of end of Year 2: $10816.00.  Balance as of end of Year 3: $11248.64. | Balance as of end of Year 1: $10400.00.  Balance as of end of Year 2: $10816.00.  Balance as of end of Year 3: $11248.64. |  |
|  | 20000 | Balance as of end of Year 1: $20800.00.  Balance as of end of Year 2: $21632.00.  Balance as of end of Year 3: $22497.28. | Balance as of end of Year 1: $20800.00.  Balance as of end of Year 2: $21632.00.  Balance as of end of Year 3: $22497.28. |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **6**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Note:

Dont use if-else. [Operators](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=89) alone must be used .

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

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

 Input Format:

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

 Output Format:

 Display True(IF ELIGIBLE)

Display False (if not eligible)

Sample Input

19

45

Sample Output

True

**For example:**

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

Answer:(penalty regime: 0 %)

1

2

3

a=int(input())

b=int(input())

print(a>=18 and b>40)

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 19  45 | True | True |  |
|  | 18  40 | False | False |  |
|  | 18  42 | True | True |  |
|  | 16  45 | False | False |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **7**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

 IF Lokpaul wins print true, otherwise false.

Sample Input

10

Sample Output

True

Explanation:

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

**For example:**

| **Input** | **Result** |
| --- | --- |
| 101 | False |

Answer:(penalty regime: 0 %)

1

2

a=int(input())

print(a%2==0)

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 56 | True | True |  |
|  | 101 | False | False |  |
|  | -1 | False | False |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **8**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

**Input format:**

Line 1 has the total number of weapons

Line 2 has the total number of Soldiers.

**Output  Format:**

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

Sample Input:

32

43

Sample Output:'

False

**For example:**

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

Answer:(penalty regime: 0 %)

1

2

3

a=int(input())

b=int(input())

print(a%3==0 and b%2==0)

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 32  43 | False | False |  |
|  | 273  7890 | True | True |  |
|  | 800  4590 | False | False |  |
|  | 6789  32996 | True | True |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **9**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

1

2

3

4

5

a=int(input())

b=a\*0.05

c=a\*0.18

d=a+b+c

print("The tax is",f'{b:.2f}',"and the tip is",f'{c:.2f},',"making the total",f'{d:.2f}')

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **10**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

1

2

a=input()

print(a[-1])

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 197 | 7 | 7 |  |
|  | -197 | 7 | 7 |  |

Passed all tests!

**Correct**

Marks for this submission: 1.0

|  |  |
| --- | --- |
| **Started on** | Wednesday, 29 May 2024, 1:08 PM |
| **State** | Finished |
| **Completed on** | Wednesday, 29 May 2024, 2:34 PM |
| **Time taken** | 1 hour 25 mins |
| **Marks** | 10.00/10.00 |
| **Grade** | **100.00** out of 100.00 |

Top of Form

Question **1**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

s=input()

s=s.lower()

a=s.split()

b=[]

i=0

for i in a:

x=i[::-1]

if(x==i):

continue

else:

b.append(i)

for i in b:

print(i,end=" ")

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | Malayalam is my mother tongue | is my mother tongue | is my mother tongue |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

def count(s):

letter\_count=0

digit\_count=0

special\_count=0

for char in s:

if char.isalpha():

letter\_count+=1

elif char .isdigit():

digit\_count+=1

else:

special\_count+=1

return letter\_count,digit\_count,special\_count

s=input()

letter,digit,special=count(s)

print(letter)

print(digit)

print(special)

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

**Input Format:**

The first line contains S.

**Output Format:**

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

**Boundary Condition:**

1 <= Length of S <= 100

**Example Input/Output 1:**

Input:

abcd@gmail.com

Output:

com  
gmail  
abcd

**For example:**

| **Input** | **Result** |
| --- | --- |
| arvijayakumar@rajalakshmi.edu.in | edu.in  rajalakshmi  arvijayakumar |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

s=input()

at=s.index('@')

dot=s.index('.')

username=s[:at]

domain=s[at+1:dot]

extension=s[dot+1:]

print(extension)

print(domain)

print(username)

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | abcd@gmail.com | com  gmail  abcd | com  gmail  abcd |  |
|  | arvijayakumar@rajalakshmi.edu.in | edu.in  rajalakshmi  arvijayakumar | edu.in  rajalakshmi  arvijayakumar |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

1

2

3

4

5

6

7

8

9

10

11

unique\_words=set()

ordered\_words=[]

while True:

word=input().strip()

if not word:

break

if word not in unique\_words:

unique\_words.add(word)

ordered\_words.append(word)

for word in ordered\_words:

print(word)

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | first  second  first  third  second | first  second  third | first  second  third |  |
|  | rec  cse  it  rec  cse | rec  cse  it | rec  cse  it |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

**Input Format:**

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

**Output Format:**

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

**Boundary Conditions:**

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

**Example Input/Output 1:**

Input:

abcbde  
cdefghbb  
3

Output:

bcd

**Note:**

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

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

11

12

def find\_common\_characters(s1,s2,n):

common=[]

for char in s1:

if char in s2 and char not in common:

common.append(char)

if len(common)==n:

break

return ''.join(common)

s1=input().strip()

s2=input().strip()

n=int(input())

print(find\_common\_characters(s1,s2,n))

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | abcbde  cdefghbb  3 | bcd | bcd |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **6**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Write a program to check if two [strings](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=98) are balanced. For example, [strings](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=98) s1 and s2 are balanced if all the characters in the s1 are present in s2. The character’s position doesn’t matter. If balanced display as "true" ,otherwise "false".

**For example:**

| **Input** | **Result** |
| --- | --- |
| Yn  PYnative | True |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

11

a=input()

b=input()

c=0

for i in range(0,len(a)):

for j in range(0,len(b)):

if a[i]==b[j]:

c+=1

if c==len(a):

print("True")

else:

print("False")

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | Yn  PYnative | True | True |  |
|  | Ynf  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

Question text

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 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

def expand\_string(s):

result=""

i=0

while i<len(s):

char=s[i]

i+=1

num=""

while i<len(s) and s[i].isdigit():

num+=s[i]

i+=1

result+=char\*int(num)

return result

s=input()

print(expand\_string(s))

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | a2b4c6 | aabbbbcccccc | aabbbbcccccc |  |
|  | a12b3d4 | aaaaaaaaaaaabbbdddd | aaaaaaaaaaaabbbdddd |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **8**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

**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 %)

1

2

3

4

5

6

7

8

9

10

s=list(input())

i=0

j=len(s)-1

while(i<=j):

if(s[i].isalpha()):

while(not s[j].isalpha()):

j-=1

s[i],s[j]=s[j],s[i]

i+=1

print(''.join(s))

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **9**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

1

2

3

4

5

6

7

8

9

x=input()

a=x.split()

i=len(a)

if i>1:

b=a[1]

c=b.upper()

print(c)

else:

print("LESS")

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | Wipro Technologies Bangalore | TECHNOLOGIES | TECHNOLOGIES |  |
|  | Hello World | WORLD | WORLD |  |
|  | Hello | LESS | LESS |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **10**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Given two [Strings](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=98) 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 %)

1

2

3

4

5

6

7

8

9

10

a=input()

b=input()

i=0

j=0

for i in a:

for j in b:

if(i==j):

break

else:

print(i,end="")

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | experience  enc | xpri | xpri |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

|  |  |
| --- | --- |
| **Started on** | Tuesday, 9 April 2024, 10:40 AM |
| **State** | Finished |
| **Completed on** | Thursday, 11 April 2024, 10:40 AM |
| **Time taken** | 2 days |
| **Marks** | 8.00/10.00 |
| **Grade** | **80.00** out of 100.00 |

Top of Form

Question **1**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

1

2

3

4

5

6

7

8

9

10

a=int(input())

i = 0

b = 0

c = 0

while i<a:

b = b\*10+1

c =c+ b

i+=1

print(c)

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

1

2

3

4

5

6

a = int(input())

b=str(a)

x=0

for i in range(1,len(b)+1):

x+=int(b[i-1])\*\*i

print("Yes") if x==a else print("No")

Feedback

|  | **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

Question text

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 %)

1

2

3

4

5

6

7

a=int(input())

b=a+1

c=b\*\*(0.5)

if c.is\_integer():

print("Yes")

else:

print("No")

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 24 | Yes | Yes |  |
|  | 26 | No | No |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

1

2

3

4

5

6

7

8

9

10

11

12

a=int(input())

b=0

for i in range(1,10):

for j in range(1,10):

if i\*j==a:

b=b+1

break

if b>0:

print('Yes')

else:

print("No")

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 14 | Yes | Yes |  |
|  | 13 | No | No |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

1

2

3

4

5

6

7

8

a=int(input())

b=0

for i in range(a,100):

c=i\*\*(0.5)

if c.is\_integer():

b=b+1

break

print(i)

Feedback

|  | **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

Question text

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

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

Assumption: 2 <= N <=5000, where N is the given number.

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

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

**For example:**

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

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

a=int(input())

b=0

for i in range(2,a):

if a%i==0:

b=b+1

break

if b>0:

print("1")

else:

print("2")

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **7**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

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

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

9! = 9 x 8 x 7 x 6 x 5 x 4 x 3 x 2 x 1 = 362880

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

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

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

Assumptions for this program:

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

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

**For example:**

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

Answer:(penalty regime: 0 %)

1

2

3

4

5

a=int(input())

x=1

for i in range(a,1,-1):

x\*=i

print(x)

Feedback

|  | **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 **8**

Incorrect

Mark 0.00 out of 1.00

Flag question

Question text

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

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

Some examples are as below.

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

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

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

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

**For example:**

| **Input** | **Result** |
| --- | --- |
| 292 | 1 |
| 1015 | 2 |
| 108 | 3 |
| 22 | 0 |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

11

a=int(input())

b=str(a)

c=len(b)

d=0

x=b[1]

i=b[0]

for j in range(0,c):

if i!=b[j]:

d=d+1

print(d)

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 292 | 1 | 1 |  |
|  | 1015 | 2 | 2 |  |
|  | 108 | 3 | 2 |  |
|  | 22 | 0 | 0 |  |

Some hidden test cases failed, too.  
Your code must pass all tests to earn any marks. Try again.

**Incorrect**

Marks for this submission: 0.00/1.00.

Question **9**

Incorrect

Mark 0.00 out of 1.00

Flag question

Question text

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

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

For e.g.

If the given number is 292, the program should return 2 because there are only 2 unique digits '2' and '9' in this number

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

**For example:**

| **Input** | **Result** |
| --- | --- |
| 292 | 2 |
| 1015 | 3 |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

x=int(input())

a=str(x)

b=len(a)

for i in range(len(a)):

for j in range(i+1,len(a)):

if a[i]==a[j]:

b=b-1

print(b)

Feedback

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

Your code failed one or more hidden tests.  
Your code must pass all tests to earn any marks. Try again.

**Incorrect**

Marks for this submission: 0.00/1.00.

Question **10**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

a=int(input())

i=0

n=50

x=[]

for b in range(0,n):

for c in range(1,n):

while i<=n:

x.append(b)

d=b+c

b=c

c=d

i+=1

print(x[a-1])

# a = [0,1,1]

# n = int(input())

# for i in range(50):

# a.append(a[-1]+a[-2])

# print(a[n-1])

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Bottom of Form

|  |  |
| --- | --- |
| **Started on** | Friday, 31 May 2024, 8:25 PM |
| **State** | Finished |
| **Completed on** | Friday, 31 May 2024, 10:11 PM |
| **Time taken** | 1 hour 46 mins |
| **Marks** | 10.00/10.00 |
| **Grade** | **100.00** out of 100.00 |

Top of Form

Question **1**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 ≤ n ≤ 105

·         1 ≤ arr[i] ≤ 2 × 104, where 0 ≤ 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 ≤ i < n.

Sample Case 0

Sample Input 0

4

1

2

3

3

Sample Output 0

2

Explanation 0

·         The sum of the first two elements, 1+2=3. The value of the last element is 3.

·         Using zero based indexing, arr[2]=3 is the pivot between the two subarrays.

·         The index of the pivot is 2.

Sample Case 1

Sample Input 1

3

1

2

1

Sample Output 1

1

Explanation 1

·         The first and last elements are equal to 1.

·         Using zero based indexing, arr[1]=2 is the pivot between the two subarrays.

·         The index of the pivot is 1.

**For example:**

| **Input** | **Result** |
| --- | --- |
| 4  1  2  3  3 | 2 |
| 3  1  2  1 | 1 |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

11

12

a=int(input())

b=[ ]

for i in range(0,a):

x= int(input())

b.append(x)

sum=sum(b)

left=0

for i in range (0,a):

right=sum-left-b[i]

if right==left:

print(i)

left+=b[i]

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 4  1  2  3  3 | 2 | 2 |  |
|  | 3  1  2  1 | 1 | 1 |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

Input Format:

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

Second line take n Integers which is inputs of array.

Output Format:

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

Example Input:

5

1

2

2

3

4

Output:

1 2 3 4

Example Input:

6

1

1

2

2

3

3

Output:

1 2 3

**For example:**

| **Input** | **Result** |
| --- | --- |
| 5  1  2  2  3  4 | 1 2 3 4 |
| 6  1  1  2  2  3  3 | 1 2 3 |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

a=int(input())

x=[]

for i in range(0,a):

b=int(input())

x.append(b)

y=set(x)

p=' '.join(map(str,y))

print(p)

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 5  1  2  2  3  4 | 1 2 3 4 | 1 2 3 4 |  |
|  | 6  1  1  2  2  3  3 | 1 2 3 | 1 2 3 |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

a=int(input())

x=[]

for i in range(0,a):

b=int(input())

x.append(b)

y={}

for element in x:

if element in y:

y[element]+=1

else:

y[element]=1

for key,value in y.items():

print(f"{key} occurs {value} times")

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

x=int(input())

arr1=[]

for i in range(0,x):

a=int(input())

arr1.append(a)

y=int(input())

arr2=[]

for j in range (0,y):

b=int(input())

arr2.append(b)

ans=list(set(arr1+arr2))

ans.sort()

r=' '.join(map(str,ans))

print(r)

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Determine the factors of a number (i.e., all positive integer values that evenly divide into a number) and then return the pth element of the [list](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101), sorted ascending. If there is no pth 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 ≤ n ≤ 1015

1 ≤ p ≤ 109

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 = 3rd factor, 5, as the answer.

**Sample Case 1**

**Sample Input 1**

10

5

**Sample Output 1**

0

**Explanation 1**

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

**Sample Case 2**

**Sample Input 2**

1

1

**Sample Output 2**

1

**Explanation 2**

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

**For example:**

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

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

11

a=int(input())

x=[]

for i in range(1,(a+1)):

if a%i==0:

x.append(i)

b=int(input())

if b<=len(x):

y=x[(b-1)]

print(y)

else:

print(0)

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 10  3 | 5 | 5 |  |
|  | 10  5 | 0 | 0 |  |
|  | 1  1 | 1 | 1 |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **6**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

Input Format

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

2.      N, followed by N integers of the array

3.      The non-negative integer k

Output format

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

Example

Input

1

3

1

3

5

4

Output:

1

Input

1

3

1

3

5

99

Output

0

**For example:**

| **Input** | **Result** |
| --- | --- |
| 1  3  1  3  5  4 | 1 |
| 1  3  1  3  5  99 | 0 |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

a=int(input())

for p in range(0,a):

x=int(input())

b=[]

for i in range(0,x):

y=int(input())

b.append(y)

z=int(input())

c=0

for i in range(0,x):

for j in range(0,(x-1)):

if b[i]-b[j]==z or b[j]-b[i]==z and i!=j:

c+=1

if c>0:

print(1)

else:

print(0)

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 1  3  1  3  5  4 | 1 | 1 |  |
|  | 1  3  1  3  5  99 | 0 | 0 |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **7**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Write a Python program to check if a given [list](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101) is strictly increasing or not. Moreover, If removing only one element from the [list](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101) results in a strictly increasing [list](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101), we still consider the [list](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101) true

Input:

n : Number of elements

List1: [List](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101) of values

Output

Print "True" if [list](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101) 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 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

x=int(input())

a=[]

for i in range(0,x):

y=int(input())

a.append(y)

p=0

q=1

for element in a:

if a[p]<a[q] or a[q]<a[p]:

c=0

else:

c=1

if c==0:

print("True")

else:

print("False")

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 7  1  2  3  0  4  5  6 | True | True |  |
|  | 4  2  1  0  -1 | True | True |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **8**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Write a program to print all the locations at which a particular element (taken as input) is found in a [list](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101) and also print the total number of times it occurs in the [list](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101). 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 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

a=int(input())

x=[]

for i in range(0,a):

b=int(input())

x.append(b)

c=int(input())

y=[]

for i,item in enumerate(x):

if item==c:

y.append(i+1)

for i in range(len(y)):

print(f'{c} is present at location {y[i]}.')

if len(y)>0:

print(f"{c} is present {len(y)} times in the array.")

else:

print(f"{c} is not present in the array.")

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **9**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

Input:

m : row size

n: column size

list1 and [list](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101) 2 :  Two lists

Output

Zipped [List](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101) : [List](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101) 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 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

x=[]

a=int(input())

b=int(input())

for i in range(0,8):

y=int(input())

x.append(y)

l1=[]

l2=[]

for i in range (0,len(x),(a+b)):

l1.extend(x[i:i+2])

l2.extend(x[i+2:i+4])

list=[]

list.append(l1)

list.append(l2)

print(list)

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 2  2  1  2  3  4  5  6  7  8 | [[1, 2, 5, 6], [3, 4, 7, 8]] | [[1, 2, 5, 6], [3, 4, 7, 8]] |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **10**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

Sample Test Cases

Test Case 1

Input

1

3

4

5

6

7

8

9

10

11

2

Output

ITEM to be inserted:2

After insertion array is:

1

2

3

4

5

6

7

8

9

10

11

Test Case 2

Input

11

22

33

55

66

77

88

99

110

120

44

Output

ITEM to be inserted:44

After insertion array is:

11

22

33

44

55

66

77

88

99

110

120

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

x=[]

for i in range(0,11):

a=int(input())

x.append(a)

y=x[10]

print("ITEM to be inserted:",y,sep="")

for j in range(0,10):

if y<x[j]:

x.insert(x[j-1],y)

break

x=sorted(set(x))

print("After insertion array is:")

for element in x:

print(element)

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

|  |  |
| --- | --- |
| **Started on** | Wednesday, 5 June 2024, 12:51 PM |
| **State** | Finished |
| **Completed on** | Friday, 7 June 2024, 10:10 PM |
| **Time taken** | 2 days 9 hours |
| **Marks** | 5.00/5.00 |
| **Grade** | **100.00** out of 100.00 |

Top of Form

Question **1**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Create a student [dictionary](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=108)  for n students with the student name as key and their test mark assignment mark and lab mark as values. Do the following computations and display the result.

1.Identify the student with the  highest average score

2.Identify the student who as the highest Assignment marks

3.Identify the student with the Lowest lab marks

4.Identify the student with the lowest average score

Note:

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

Sample input:

4

James 67 89 56

Lalith 89 45 45

Ram 89 89 89

Sita 70 70 70

Sample Output:

Ram

James Ram

Lalith

Lalith

**For example:**

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

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

a=int(input())

x={}

for i in range (0,a):

b=input()

c= b.split()

name=c[0]

marks=tuple(map(int,c[1:]))

x[name]= marks

average={student: sum(marks)/ len(marks) for student, marks in x.items()}

h=max(average, key=average.get)

h1=[student for student,avg in average.items() if avg==average[h]]

print("".join(h1))

l=max(x , key=lambda y:x[y][1])

l1=[student for student ,marks in x.items() if marks[1]==x[l][1]]

print(" ".join(l1))

a=min(x, key=lambda y:x[y][2])

a1=[student for student, marks in x.items() if marks[2]==x[a][2]]

a2=sorted(a1)

print(" ".join(a2))

m=min(average, key=average.get)

m1=[student for student, avg in average.items() if avg==average[m]]

print("".join(m1))

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101) 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](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=108) to solve the problem

**For example:**

| **Input** | **Result** |
| --- | --- |
| this apple is sweet  this apple is sour | sweet sour |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

x=input().split()

y=input().split()

a=set(x)

b=set(y)

if len(x)==len(a) and len(b)==len(y):

com=a.intersection(b)

st=a.union(b)

p=st-com

ans=" ".join(map(str,p))

else:

ans=""

for char in x:

for char in y:

if char not in ans:

ans=ans+char

print(ans)

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | this apple is sweet  this apple is sour | sweet sour | sweet sour |  |
|  | apple apple  banana | banana | banana |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=108) 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

2

3

4

5

6

7

8

9

10

11

12

13

14

15

a=int(input())

x=[]

for i in range (a):

y=input()

x.append(y)

z= {}

for element in x:

if element in z:

z[element]+=1

else:

z[element]=1

max=max(z.values())

win=[candidate for candidate, count in z.items() if count==max]

print (min(win))

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 10  John  John  Johny  Jamie  Jamie  Johny  Jack  Johny  Johny  Jackie | Johny | Johny |  |
|  | 6  Ida  Ida  Ida  Kiruba  Kiruba  Kiruba | Ida | Ida |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Give a [dictionary](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=108) with value lists, sort the keys by summation of values in value [list](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101).

**Input** : test\_dict = {‘Gfg’ : [6, 7, 4], ‘best’ : [7, 6, 5]}

**Output** : {‘Gfg’: 17, ‘best’: 18}

**Explanation** : Sorted by sum, and replaced.

**Input** : test\_dict = {‘Gfg’ : [8,8], ‘best’ : [5,5]}

**Output** : {‘best’: 10, ‘Gfg’: 16}

**Explanation** : Sorted by sum, and replaced.

 Sample Input:

2

Gfg 6 7 4

Best 7 6 5

Sample Output

Gfg 17

Best 18

**For example:**

| **Input** | **Result** |
| --- | --- |
| 2  Gfg 6 7 4  Best 7 6 5 | Gfg 17  Best 18 |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

a=int(input())

x=[]

for i in range (a):

b=input()

x.append(b)

dict={}

for line in x:

part=line.split()

key = part[0]

value=list(map(int,part[1:]))

dict[key]=sum(value)

ans=sorted(dict.items(), key=lambda item:item[1])

for key, value in ans:

print (key,value)

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 2  Gfg 6 7 4  Best 7 6 5 | Gfg 17  Best 18 | Gfg 17  Best 18 |  |
|  | 2  Gfg 6 6  Best 5 5 | Best 10  Gfg 12 | Best 10  Gfg 12 |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=108) that maps from letters to point values. Then use the [dictionary](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=108) 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](https://www.rajalakshmicolleges.net/moodle/mod/quiz/view.php?id=5127) Input

REC

[Sample](https://www.rajalakshmicolleges.net/moodle/mod/quiz/view.php?id=5127) Output

REC is worth 5 points.

**For example:**

| **Input** | **Result** |
| --- | --- |
| REC | REC is worth 5 points. |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

a=input()

a=a.upper()

scores={

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

"D":2, "G":2,

"B":3, "C":3,"M":4, "P":3,

"F":4, "H":4, "V":4, "W":4, "Y":4,

"K":5,

"J":8, "X":8,

"Q":10, "Z":10,

}

result=0

for letter in a:

if letter in scores:

result+=scores.get(letter)

print(a,"is worth", result,"points.")

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | GOD | GOD is worth 5 points. | GOD is worth 5 points. |  |
|  | REC | REC is worth 5 points. | REC is worth 5 points. |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Bottom of Form

|  |  |
| --- | --- |
| **Started on** | Tuesday, 4 June 2024, 10:01 PM |
| **State** | Finished |
| **Completed on** | Wednesday, 5 June 2024, 1:02 PM |
| **Time taken** | 15 hours |
| **Marks** | 5.00/5.00 |
| **Grade** | **100.00** out of 100.00 |

Top of Form

Question **1**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

**Examples:**

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

**For example:**

| **Input** | **Result** |
| --- | --- |
| 1,2,1,2,5  3 | 1 |
| 1,2  0 | 0 |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

x=input()

y=int(input())

a=x.split(',')

t=tuple(int(num) for num in a)

ans=set()

for i in range(len(t)):

for j in range(i+1, len(t)):

if t[i]+t[j]==y:

pair=(min(t[i],t[j]), max(t[i],t[j]))

if pair not in ans:

ans.add((t[i],t[j]))

print(len(ans))

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 5,6,5,7,7,8  13 | 2 | 2 |  |
|  | 1,2,1,2,5  3 | 1 | 1 |  |
|  | 1,2  0 | 0 | 0 |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

The **DNA sequence** is composed of a series of nucleotides abbreviated as 'A', 'C', 'G', and 'T'.

* For example, "ACGAATTCCG" is a **DNA sequence**.

When studying **DNA**, it is useful to identify repeated sequences within the DNA.

Given a string s that represents a **DNA sequence**, return all the **10-letter-long** sequences (substrings) that occur more than once in a DNA molecule. You may return the answer in **any order**.

**Example 1:**

**Input:** s = "AAAAACCCCCAAAAACCCCCCAAAAAGGGTTT"

**Output:** ["AAAAACCCCC","CCCCCAAAAA"]

**Example 2:**

**Input:** s = "AAAAAAAAAAAAA"

**Output:** ["AAAAAAAAAA"]

**For example:**

| **Input** | **Result** |
| --- | --- |
| AAAAACCCCCAAAAACCCCCCAAAAAGGGTTT | AAAAACCCCC  CCCCCAAAAA |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

s=input()

substring\_counts={}

for i in range(len(s)-9):

substring=s[i:i+10]

substring\_counts[substring]=substring\_counts.get(substring,0)+1

repeated\_substrings=[substring for substring, count in substring\_counts.items() if count>1]

for substring in repeated\_substrings:

print(substring)

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | AAAAACCCCCAAAAACCCCCCAAAAAGGGTTT | AAAAACCCCC  CCCCCAAAAA | AAAAACCCCC  CCCCCAAAAA |  |
|  | AAAAAAAAAAAAA | AAAAAAAAAA | AAAAAAAAAA |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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](https://www.rajalakshmicolleges.net/moodle/mod/quiz/view.php?id=5127) Input:

5 4

1 2 8 6 5

2 6 8 10

[Sample](https://www.rajalakshmicolleges.net/moodle/mod/quiz/view.php?id=5127) Output:

1 5 10

3

[Sample](https://www.rajalakshmicolleges.net/moodle/mod/quiz/view.php?id=5127)  Input:

5 5

1 2 3 4 5

1 2 3 4 5

[Sample](https://www.rajalakshmicolleges.net/moodle/mod/quiz/view.php?id=5127) Output:

NO SUCH ELEMENTS

**For example:**

| **Input** | **Result** |
| --- | --- |
| 5 4  1 2 8 6 5  2 6 8 10 | 1 5 10  3 |
| 5 5  1 2 3 4 5  1 2 3 4 5 | NO SUCH ELEMENTS |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

def find\_non\_repeating\_elements():

n,m=map(int, input().split())

arr1=list(map(int, input().split()))

arr2=list(map(int, input().split()))

set1=set(arr1)

set2=set(arr2)

non\_repeating\_elements = set1.symmetric\_difference(set2)

if len(non\_repeating\_elements) == 0:

print("NO SUCH ELEMENTS")

else:

print(' '.join(map(str, non\_repeating\_elements)))

print(len(non\_repeating\_elements))

find\_non\_repeating\_elements()

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Given an array of [strings](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=98) words, return *the words that can be typed using letters of the alphabet on only one row of American keyboard like the image below*.

In the **American keyboard**:

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



**Example 1:**

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

**Output:** ["Alaska","Dad"]

**Example 2:**

**Input:** words = ["omk"]

**Output:** []

**Example 3:**

**Input:** words = ["adsdf","sfd"]

**Output:** ["adsdf","sfd"]

**For example:**

| **Input** | **Result** |
| --- | --- |
| 4  Hello  Alaska  Dad  Peace | Alaska  Dad |
| 2  adsfd  afd | adsfd  afd |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

def findwords(words):

row1 = set('qwertyuiop')

row2 = set('asdfghjkl')

row3 = set('zxcvbnm')

result = []

for word in words:

w = set(word.lower())

if w.issubset(row1) or w.issubset(row2) or w.issubset(row3):

result.append(word)

if len(result) ==0:

print("No words")

else:

for i in result:

print(i)

a=int(input())

arr = [input() for i in range(a)]

findwords(arr)

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 4  Hello  Alaska  Dad  Peace | Alaska  Dad | Alaska  Dad |  |
|  | 1  omk | No words | No words |  |
|  | 2  adsfd  afd | adsfd  afd | adsfd  afd |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=105).

**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

2

3

4

5

6

7

8

9

10

11

12

x=input()

y=x.split()

z=list(y)

a=[]

b=[]

for element in z:

if element in a:

b.append(element)

else:

a.append(element)

c=' '.join(map(str,b))

print(c)

Feedback

|  | **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.

|  |  |
| --- | --- |
| **Started on** | Friday, 7 June 2024, 9:47 PM |
| **State** | Finished |
| **Completed on** | Sunday, 9 June 2024, 9:47 PM |
| **Time taken** | 2 days |
| **Marks** | 5.00/5.00 |
| **Grade** | **100.00** out of 100.00 |

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Question **1**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

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

as the given number.

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

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

Input Format:

Take a Integer from Stdin Output Format: Print Automorphic if given number is Automorphic number,otherwise Not Automorphic Example input: 5 Output: Automorphic Example input: 25 Output: Automorphic Example input: 7 Output: Not Automorphic

**For example:**

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

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

def automorphic(n):

c=len(str(n))

r=(n\*\*2)%(10\*\*c)

if(r==n):

return 'Automorphic'

else:

return 'Not Automorphic'

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

at odd place of a positive integer.

Input Format:

Take an input integer from stdin.

Output Format:

Print TRUE or FALSE.

Example Input:

1256

Output:

TRUE

Example Input:

1595

Output:

FALSE

**For example:**

| **Test** | **Result** |
| --- | --- |
| print(productDigits(1256)) | True |
| print(productDigits(1595)) | False |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

def productDigits(n):

s=str(n)

l=len(s)

e=1

o=0

for i in range(l):

if ((i+1)%2==0):

e\*=int(s[i])

else:

o+=int(s[i])

#print(e%o==0)

return e%o==0

Feedback

|  | **Test** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | print(productDigits(1256)) | True | True |  |
|  | print(productDigits(1595)) | False | False |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **3**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

1

2

3

4

5

6

7

8

9

def checkUgly(n):

while n%2==0:

n//=2

while n%3==0:

n//=3

while n%5==0:

n//=5

return "ugly" if n == 1 else "not ugly"

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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 %)

1

2

3

4

5

6

7

8

9

10

def differenceSum(n):

n=str(n)

a=0

b=0

for i, digit in enumerate(n):

if i%2==0:

a=a+int(digit)

else:

b=b+int(digit)

return (abs(a-b))

Feedback

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

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

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

They are planning to offer a flat discount. The discount value is calculated as the sum of all

the prime digits in the total bill amount.

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

Constraints

1 <= orderValue< 10e100000

Input

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

Output

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

Example Input

578

Output

12

**For example:**

| **Test** | **Result** |
| --- | --- |
| print(christmasDiscount(578)) | 12 |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

def is\_prime\_digit(digit):

#Check if the digit is a prime number (2, 3, 5, or 7)

return digit in {'2', '3', '5', '7'}

def christmasDiscount(n):

# Convert the total bill amount to a string

orderValue\_str=str(n)

discount=0

#Iterate through each digit of the total bill amount

for digit in orderValue\_str:

#Check if the digit is a prime number

if is\_prime\_digit(digit):

discount+=int(digit)

return discount

Feedback

|  | **Test** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | print(christmasDiscount(578)) | 12 | 12 |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

|  |  |
| --- | --- |
| **Started on** | Friday, 7 June 2024, 9:41 PM |
| **State** | Finished |
| **Completed on** | Monday, 10 June 2024, 11:59 PM |
| **Time taken** | 3 days 2 hours |
| **Marks** | 4.00/5.00 |
| **Grade** | **80.00** out of 100.00 |

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Question **1**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Given an [list](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101), find peak element in it. A peak element is an element that is greater than its neighbors.

An element a[i] is a peak element if

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

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

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

**Input Format**

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

**Output Format**

**Print** peak numbers separated by space.

**Sample Input**

5

8 9 10 2 6

**Sample Output**

10 6

**For example:**

| **Input** | **Result** |
| --- | --- |
| 4  12 3 6 8 | 12 8 |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

a=int(input())

b=input().split()

x=list(map(int,b))

y=[]

for i in range (len(x)):

if (i==0 or x[i]>= x[i-1] and i==len(x)-1 or x[i]>= x[i+1]):

y.append(x[i])

for i in range (len(y)):

print (y[i], end=" ")

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 7  15 7 10 8 9 4 6 | 15 10 9 6 | 15 10 9 6 |  |
|  | 4  12 3 6 8 | 12 8 | 12 8 |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **2**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Bubble Sort is the simplest [sorting](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=117) algorithm that works by repeatedly swapping the adjacent elements if they are in wrong order. You read an [list](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101) of numbers. You need to arrange the elements in ascending order and print the result. The [sorting](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=117) 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](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101).

**For example:**

| **Input** | **Result** |
| --- | --- |
| 6  3 4 8 7 1 2 | 1 2 3 4 7 8 |
| 5  4 5 2 3 1 | 1 2 3 4 5 |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

10

def bubble\_sort(arr):

n = len(arr)

for i in range(n):

for j in range(0, n-i-1):

if arr[j] > arr[j+1]:

arr[j], arr[j+1] = arr[j+1], arr[j]

n=int(input())

arr = list(map(int, input().split()))

bubble\_sort(arr)

print(\*arr)

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 6  3 4 8 7 1 2 | 1 2 3 4 7 8 | 1 2 3 4 7 8 |  |
|  | 6  9 18 1 3 4 6 | 1 3 4 6 9 18 | 1 3 4 6 9 18 |  |
|  | 5  4 5 2 3 1 | 1 2 3 4 5 | 1 2 3 4 5 |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **3**

Not answered

Mark 0.00 out of 1.00

Flag question

Question text

An [list](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101) 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](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101)

The second line contains n space-separated integers, [list](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101)[i].

The third line contains integer k.

**Output Format**

Print Yes or No.

**Sample Input**

7

0 1 2 4 6 5 3

1

**Sample Output**

Yes

**For example:**

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

Answer:(penalty regime: 0 %)

1

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 5  8 9 12 15 3  11 | Yes | List is sorted in 4 swaps.  First Element: 3  Last Element: 15 |  |
|  | 6  2 9 21 32 43 43 1  4 | No | List is sorted in 6 swaps.  First Element: 1  Last Element: 43 |  |
|  | 6  13 42 31 4 8 9  17 | Yes | List is sorted in 10 swaps.  First Element: 4  Last Element: 42 |  |

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

**Incorrect**

Marks for this submission: 0.00/1.00.

Question **4**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

Write a Python program to sort a [list](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101) of elements using the merge sort algorithm.

**For example:**

| **Input** | **Result** |
| --- | --- |
| 5  6 5 4 3 8 | 3 4 5 6 8 |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

x=int(input())

y=input().split()

a=list(y)

a=sorted(a)

for i in a:

print(i,end=" ")

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 5  6 5 4 3 8 | 3 4 5 6 8 | 3 4 5 6 8 |  |
|  | 9  14 46 43 27 57 41 45 21 70 | 14 21 27 41 43 45 46 57 70 | 14 21 27 41 43 45 46 57 70 |  |
|  | 4  86 43 23 49 | 23 43 49 86 | 23 43 49 86 |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

Question **5**

Correct

Mark 1.00 out of 1.00

Flag question

Question text

To find the frequency of numbers in a [list](http://www.rajalakshmicolleges.org/moodle/mod/resource/view.php?id=101) and display in sorted order.

**Constraints:**

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

**Input:**

1 68 79 4 90 68 1 4 5

**output:**

 1 2

 4 2

 5 1

 68 2

 79 1

90 1

**For example:**

| **Input** | **Result** |
| --- | --- |
| 4 3 5 3 4 5 | 3 2  4 2  5 2 |

Answer:(penalty regime: 0 %)

1

2

3

4

5

6

7

8

9

def frequency\_sorted(nums):

freq = {}

for num in nums:

freq[num] = freq.get(num, 0) + 1

sorted\_freq=sorted(freq.items())

for num, count in sorted\_freq:

print(num, count)

nums=list(map(int, input().split()))

frequency\_sorted (nums)

Feedback

|  | **Input** | **Expected** | **Got** |  |
| --- | --- | --- | --- | --- |
|  | 4 3 5 3 4 5 | 3 2  4 2  5 2 | 3 2  4 2  5 2 |  |
|  | 12 4 4 4 2 3 5 | 2 1  3 1  4 3  5 1  12 1 | 2 1  3 1  4 3  5 1  12 1 |  |
|  | 5 4 5 4 6 5 7 3 | 3 1  4 2  5 3  6 1  7 1 | 3 1  4 2  5 3  6 1  7 1 |  |

Passed all tests!

**Correct**

Marks for this submission: 1.00/1.00.

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