SET - 1

Question 1: There is a JAR full of candies for sale at a mall counter. JAR has the capacity N. that is JAR can contain maximum N candies when JAR is full. At any point of time. JAR can have M number of Candies where M-N. Candies are served to the customers. JAR never remains empty as when last k candies are left. JAR is refilled with new candies in such a way that JAR gets full.

Write a code to implement the above scenario.

Display JAR at the counter with an available number of candies. Input should be the number of candies one customer can order at a point of time.

Update the JAR after each purchase and display JAR at Counter.

Output should give the number of Candies sold and the updated number of Candies in JAR.

If Input is more than candies in JAR, return: "INVALID INPUT

Given,

N-10, where N is NUMBER OF CANDIES AVAILABLE

K5. where k is number of minimum candies that must be inside JAR ever.

Example 1:(N-10. k-5)

Input Value

3

Output Value

NUMBER OF CANDIES SOLD:3

NUMBER OF CANDIES AVAILABLE: 7

Example: (N-10.k-5)

Input Value

0

Output Value

INVALID INPUT

NUMBER OF CANDIES LEFT: 10

Question 2: Selection of MPCS exams include a fitness test which is conducted on ground. There will be a batch of 3 trainees, appearing for running test in track for 3 rounds.

You need to record their oxygen level after every round. After trainee are finished with all rounds, calculate for each trainee his average oxygen level over the 3 rounds and select one with highest oxygen level as the most fit trainee. If more than one trainee attains the same highest average level. they all need to be selected.

Display the most fit trainee (or trainees) and the highest average oxygen level.

Note:

1. The oxygen value entered should not be accepted if it is not in the range between 1 and 100.

2. If the calculated maximum average oxygen value of trainees is below 70 then declare the trainees as unfit with meaningful message as "All trainees are unfit"

3. Average Oxygen Values should be rounded.

Example 1:

INPUT VALUES

95

92

95

92

90

92

90

92

90

OUTPUT VALUES

Trainee Number: 1

Trainee Number: 3

Note:

Input should be 9 integer values representing oxygen levels entered in order as

Round 1

Oxygen value of trainee 1

Oxygen value of trainee 2

Oxygen value of trainee 3

Round 2

Oxygen value of trainee 1

Oxygen value of trainee 2.

Oxygen value of trainee 3.

Round 3

Oxygen value of trainee 1

Oxygen value of trainee 2

Oxygen value of trainee 3

Output must be in the given format as in above example. For any wrong input final output should display "INVALID INPUT

SET – 2

Question 1: We want to estimate the cost of painting a property.

Interior wall painting cost is Rs.18 per sq.ft. and exterior wall painting cost is Rs.12 per sq.ft.

Take input as

1. Number of Interior walls

2. Number of Exterior walls

3. Surface Area of each Interior Wall in units of square feet

4. Surface Area of each Exterior Wall in units of square feet

If a user enters zero as the number of walls then skip Surface area values as User may don't want to paint that wall.

Calculate and display the total cost of painting the property

Example 1:

6

3

12.3

15.2

12.3

15.2

12.3

15.2

10.10

10.10

10.00

Total estimated Cost: 1847.4 INR

Question 2: There are total n number of Monkeys sitting on the branches of a huge Tree. As travelers offer Bananas and Peanuts, the Monkeys jump down the Tree. If every Monkey can eat k Bananas and j Peanuts. If total m number of Bananas and p number of Peanuts are offered by travelers. calculate how many Monkeys remain on the Tree after some of them jumped down to eat.

At a time one Monkeys gets down and finishes eating and go to the other side of the road. The Monkey who climbed down does not climb up again after eating until the other Monkeys finish eating.

Monkey can either eat k Bananas or j Peanuts. If for last Monkey there are less than k Bananas left on the ground or less than j Peanuts left on the ground, only that Monkey can eat Bananas(<k) along with the Peanuts(<j). Write code to take inputs as n, m, p. k. j and return the number of Monkeys left on the Tree.

Where, n- Total no of Monkeys

k- Number of eatable Bananas by Single Monkey (Monkey that jumped

down last may get less than k Bananas)

j-Number of eatable Peanuts by single Monkey(Monkey that jumped down

last may get less than j Peanuts).

mTotal number of Bananas

p-Total number of Peanuts

Remember that the Monkeys always eat Bananas and Peanuts, so there is no possibility of k and j having a value zero

Example 1:

Input Values

20

2

3

12

12

Output Values

Number of Monkeys left on the tree:10

Note: Kindly follow the order of inputs

SET - 3

Coffee

1. Espresso Coffee

2. Cappuccino Coffee

3. Latte Coffee

Tea

1. Plain Tea

2. Assam Tea

3. Ginger Tea

4. Cardamom Tea

5. Masala Tea

6. Lemon Tea

7. Green Tea

8. Organic Darjeeling Tea

Soups

1. Hot and Sour Soup

2. Veg Corn Soup

3. Tomato Soup

4. Spicy Tomato Soup

Beverages

1. Hot Chocolate Drink

2. Badam Drink

3. Badam-Pista Drink

Write a program to take input for main menu & sub menu and display the name of sub menu selected in the following format (enter the first letter to

select main menu):

Welcome to CCD

Enjoy your <name of sub menu>

Example 1:

Input

C

1

Output

Welcome to CCD!

Enjoy your Es

sso Coffee!

SET – 4

Question 1: Display sequence of Fibonacci series until the number given by user and count total even number and odd numbers in that series expect zero.Fibonacci series should start with 1.

Total count of even numbers should be displayed in the first row and odd numbers should be displayed in next row

Number given by user for Fibonacci series should be greater than 5 and less than or equal to 20. Otherwise display "INVALID INPUT"

If number given by user is space, character or empty display "INVALID INPUT" The text message should be displayed in exact format as it is case sensitive.

Example:

Input:

7

Output:

11235813

2 5

Explanation:

In above example 2 is for count of even numbers that is (2.8) and 4 is count of odd number thats (1.1.3.5.13).

Question 2: Take a single line text message from user. Separated the vowels from the text. Find the repeating occurrences of vowels from the text message.

Display count of which vowel has repeated how many times.

Display a new Text message by removing the vowel characters as output. Display the output in exact format shown below in example, after displaying count of characters on the next lines display the new text message on next line.

"Hll wlcm" is the new text message if text message entered by user does not contain any numeric value then display 0 as output.

If user entered blank or empty text message display "INVALID INPUT" as output. Message "INVALID INPUT" is case senstive. Display it in exact format given.

Example:

Input:

Hello Welcome

Output:

a:0

e:3

1:0

0:2

u:0

Hll Wiem

Example 2:

Input:

Hll wlcm

SET – 5

Question 1: A food court facilitates their customers with a featured App

where the customers can view the Menu Card and place their order. The order may be delivered on-premises as per policies. Write a code to take the order from the customers by pressing

menu number, Quantity

After one customer completes the process of placing the order by pressing the Menu number and Quantity. Your code should accept y to continue taking order or n for stopping the process of order taking

Final output should be the calculated total amount.

Menu card is given as

Number Name

Price

1. Veg sandwich

80.0

130.0

2. Cheese sandwich

100.0

3. Veg Grilled sandwich

80.0

4. Sada Dosa

90.0

5. Masala Dosa

110.0

6. Onion Rava Sada Dosa

120.0

7. Onion Rava Masala Dosa

140.0

8. Spring Dosa

70.0

80.0

9. Plain Uttapam

10. Onion Uttapam

You can use any suitable data structure to hold the menu card items with price.

Inputs for Menu Number and Quantity should be integers greater than 0 and less than 21.

For any other input, return as output: INVALID INPUT

Example 1:

INPUT VALUES

1//for enter menu number

2//for enter quantity

Y//Do you want to order More Items? (y/n)

2//for enter menu number

3//for enter quantity

N//Do you want to order

More items? (y/n)

Output values

Total Amount: 550.0 INR

Note: Input prompt should not be the part of code (Only accept values as input in order as given above)

Output should be in the format given above.

Question 2: A customer has a choice to buy TV from set of 3 company models provided by store.

If customer take an exchange offer.

Then customer get discount of 2% is old TV is not in working condition

Customer gets discount of 20% if old TV is in working condition

If customer do not opt for exchange offer then, he has to pay MRP of TV as amount

Display the amount of customer has to pay.

Menu for TV condition should be displayed only if customer choose for

exchange offer

When user enters invalid option then code should stop with message "INVALID INPUT", it should be displayed in same format as it is case sensitive.

Make sure output text should be in exact format mentioned above

Assume following List is already seen by customer. There should be 3 inputs for each question whose answer should be a number given with that choice.

First input choice

Display List (Select TV Model)

Samsung 10000

Onida 7000

HDLC 6000

Second Input Choice

Want to take Exchange Offer

Yes

No

Third Input Choice

Current Condition of customer's old TV

Working

Not Working

For example, if customer want TV HDLC and he want to opt exchange offer for his old TV which is in working condition then output will be 4800.0 INR

All input values should be entered in Following Format

3

1

1

Output 4800.0 INR

Note that when customer do not opt for exchange offer, there will be only 2 inputs.

SWET – 6

Question 1: Matthieu is an expert in Mathematics. He is performing arithmetic operations and wants to find all the divisors of P number. Note: Divisors should be separated by space and increasing order should

be maintained.

Input format

Input containing a non-negative integer 'P' denoting the number

Violation of input criteria: System should display message as "Wrong Input"

Output Format

All divisors should be separated by space and increasing order must be maintained

Constraints

1<P<=10^8

Sample 1

Input

10

Output

12510

Sample 2

Input

18

Output

12369 19

[18/03, 10:16 am] karuppu: Question 2: Alex has been preparing a box for handicraft. The box consists of N pieces of stones with each stone having a certain weight assigned to it. Each stone in the box will carry a different weight. This means no two stones can have the same weight

Alex wants to do this by making minimal changes in the original weight at least as much as its original weight

Find the minimum total weight that he can set for the box.

Note: Stone weight are not in float value.

Input

1. First input contains N. the total number of stones in the box

2. Second Input contains N sorted integers separated by newline A1.

A2....An, representing the original weights assigned to each stone violation of input criteria: System should display message as "Wrong Input".

Output

The minimum total stone weights Alex can set the box for

Constraints

1-N-100000

1-A[i]-100000

Example 1:

Input

3 2 2 4

Output

9

Explanation

As two stones have the same weight, the max weight for one of them need to be incremented to 3.

Alex can ste the box with 2+3+4-9 weights.

Example 2:

Input

2 3 4 5

Output

Wrong Input

Explanation

Here N-2. so we need to provide weight of only two stones but, we are prog weight of three stones. 9 alt is "Wrong Input

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