

51.sumTwoFive

Read the question carefully and follow the input and output format.

Given an integer array find the sum of elements which end with 2 or 5.

Input and Output Format:

First line of input consists of n, the number of elements. Next n lines correspond to the array elements.

Output consist of an integer, the sum.

1) Print "Invalid array size" when size of the array is negative .

2) Print "Invalid input" when there is any negative number available in the input array and terminate the program.

Include a function named sumTwoFive(int array[], int size) whose return type is an integer, the sum

Sample Input 1:

5
22
35
5
2
10

Sample Output 1:

64

Sample Input 2:

-6

Sample Output 2:

Invalid array size

52.Sum of Odd Digits

Write a program to find the sum of the odd digits in a number.

Include a function named **sumOddDigits** that accepts an integer argument and returns an integer that corresponds to the sum of the odd digits. The function returns -1 if the input is less than zero or if it is greater than 32767.

If the function returns -1, print "Invalid Input".

Input and Output Format:

The input consists of an integer.

The output consists of an integer that corresponds to the sum of the odd digits in the number.

Sample Input 1:

3487

Sample Output 1:

10

Sample Input 2:

-8

Sample Output 2:

Invalid Input

53.LCM

Write a program to calculate the LCM of the 2 given integers.

Include a function named **calculateLCM** that accepts 2 integer arguments and returns an int that corresponds to the LCM of the 2 numbers.

Print Invalid Input and terminate the program in the following cases:

1. Any of the 2 inputs is greater than 1000
2. Any of the 2 inputs is negative

Input and Output Format:

Input consists of 2 integers.

Output consists of a single integer that corresponds to the LCM.

Sample Input 1:

10

8

Sample Output 1:

40

Sample Input 2:

50000

Sample Output 2:

Invalid Input

54.Product of Prime Digits

Write a program to find the product of the prime digits in the given input number.

Include a function named **productPrimeDigits** that accepts an integer argument and returns an integer that corresponds to the product of the prime digits in the integer.

The function returns -1 if the input number is negative or greater than 32767.

If the function returns -1, print Invalid Input.

Please note that 1 and 0 are neither prime nor composite.

Input and Output Format:

Input consists of an integer.

Output consists of an integer.

Refer sample output for formatting specifications.

Sample Input 1:

324

Sample Output 1:

6

Sample Input 2:

-67

Sample Output 2:

Invalid Input

55.dailyAllowance

Read the question carefully and follow the input and output format.

A Sales person daily allowances calculated as follows .

Item	Money (rupees)
Shirt	15
Saree	10
other items	5

Given an input array in which the first index represents no.of shirts sold, second index represents the no of sarees sold and the third index represents the other items sold for a particular day, Calculate the total allowances.

Include a function named `dailyAllowance(int items[], int size)` that returns an integer, which is the total allowances.

Business Rules:

- 1) Print "Invalid array size" when size of the array is a negative number and terminate the program
- 2) Print "Invalid item count" when there is any negative numbers available in the input array and terminate the program
- 3) Print "Array size greater than 3" when size of the array is greater than 3 and terminate the program.

Input and Output Format :

First line of input consists of n, the number of elements. Next n lines correspond to the array elements.

Output consist of the total allowance.

Sample Input 1:

3
10
5
10

Sample Output 1:

250

Sample Input 2:

4

Sample Output 2:

Array size greater than 3

56.generateNumber

Read the question carefully and follow the input and output format.

Given an input number keep the prime digits as it is and the remaining digit in given input number should be replaced with next number(add +1 to the digit).

Print "Number too small" if the number is less than 0

Print "Number too large" if the number is greater than 32767

note : If any digit in the given input is 9 replace with 0. Consider 1 is not a prime number.

Include a function generateNumber(int number) that returns the generated number

Input and Output Format :

Input is a single integer.

Output is the generated number

Sample Input 1:

6234

Sample Output 1:

7235

Sample Input 2:

32768

Sample Output 2:

Number too large

57.sortCommonElements

Read the question carefully and follow the input and output format.

Find out the common elements in the given input arrays and sort the common elements in ascending order.

Input and Output Format :

First line corresponds to n, the size of the array. The next n lines correspond to elements in the first array. The next n lines correspond to the elements in the second array. Output corresponds to the common elements sorted in ascending order.

- 1) Print "Invalid array size" when size of the array is a negative number and terminate the program
- 2) Print "Invalid input" when there is any negative number available in the input array and terminate the program

Include a function named sortCommonElements(int set1[],int set2[],int size) whose return type is void. The output array is stored in a global variable named common.

Sample Input 1:

5
1
3
2
5
7
4
5
6
7
2

Sample Output 1:

2
5
7

Sample Input 2:

5
5
8
-9

Sample Output 2:

Invalid input

Sample Input 3:

Sample Output 3:

Invalid array size

58.findEmployeeID

Read the question carefully and follow the input and output format.

In a given input array, elements are given in this Format PPPII, where PPP represents the Project Code and II represents employee id . Find out the Employee Ids who are working in the given project code.

Input and Output Format :

First line of input consists of n, the number of elements. Next n lines correspond to the array elements. The next line corresponds to the project code. Output consists of the employee id's.

- 1) Print "Invalid array size" when size of the array is a negative number and terminate the program
- 2) Print "Invalid employee id" when there is any negative numbers available in the input array and terminate the program
- 3) Print "Invalid project code" when branch code is negative number and terminate the program

Include a function named findEmployeeID(int size,int employee_ids[],int project_code). Its return type is void.

The output array is stored in a global variable named working_employee.

Sample Input 1:

5
12345
12334
23457
23478
12546
123

Sample Output 1:

45
34

Sample Input 2:

5
12345
12334
23457
-23478

Sample Output 2:

Invalid employee id

59.Array Addition in Reverse

In an export company, the clothes are stored in boxes and are shipped in three different ships. Each box has a number on it. The boxes are stored in ships in specific pattern as below:

1. First box number in Ship1 + Last box number in Ship2 = first box number in Ship3.
 2. Second box number in Ship1 + Second Last box number in Ship2 = Second box number in ship3.
- Similarly all the boxes are numbered in ship3. Assuming the count of boxes in each ship is equal, find the box numbers in ship3.

Include a function named **arrayAddition** that accepts 3 arguments and its return type is void. The first argument is the input array 1, the second argument is the input array 2 and the third argument is an int that corresponds to the size of the array. The output is stored in an array variable named output1.

If the size of the array (the number of boxes) is negative or if any element in any of the array is negative , print “Invalid Input” and terminate the program.

Input and Output Format:

Input consists of utmost $2n+1$ integers. The first integer corresponds to n, the number of elements in the array. The next 'n' integers correspond to the elements in the first array(i.e box numbers in ship 1). The last 'n' integers correspond to the elements in the second array (i.e box numbers in ship 2). If any of the inputs are invalid, then terminate the program.

Output consists of n integers that correspond to the box numbers in ship 3.

Assume that the maximum size of the array is 20.

Sample Input 1 :

5
23
2
5
32
76
2
9
21
42
4

Sample Output 1 :

27
44
26
41
78

Sample Input 2:

-5

Sample Output 2:

Invalid Input

Sample Input 3:

5

23

2

-5

Sample Output 3:

Invalid Input

60.adjacentDifference

Read the question carefully and follow the input and output format.

Given an input Integer array, find the difference in the adjacent elements and print the largest difference

Input and Output Format :

First line of input consists of n, the number of elements. Next n lines correspond to the array elements.

Output consist of largest adjacent difference.

Print "Invalid array size" when size of the array is a negative number and terminate the program

Print "Invalid input" when there is any negative number available in the input array and terminate the program.

Include a function named adjacentDifference(int numbers[], int size) whose return type is an integer

Sample Input 1:

7

2

4

5

1

9

3

8

Sample Output 1:

8

Hint: The AdjacentElement Diff are :2,1,4,8,6,5 and Maximum diff is 8 which is obtained by 2-4 =2, 4-5=1,5- 1 =4, 1-9=8,9-3=6,3-8 =5

Sample Input 2:

5
1
7
3
-8

Sample Output 2:

Invalid input