1. write a python program to print all the composite numbers between a and b
2. write a python program to remove duplicates present in the 1D array
3. A tech number has even number of digits if the number is split in two equal halves then to generate and print all the four digit tech number
4. write a python program to print the prime numbers between the range from M to N
5. Give an integer X as numeric data type write a python program to return true if X is palindrome integer
6. write an efficient algorithm that searches from a value target in an m\*n integer matrix
7. write a python program to perform matrix multiplication
8. implement a Python program to generate a spiral matrix
9. Sum 1D (HARD)

Write a program to find three numbers from an array such that the sum of three numbers  equal to the given number.

1. Find Peak Element (MEDIUM)

A peak element is an element that is strictly greater than its neighbors. Given a theta-indexed integer array numbers, find a peak element, and return its index. If the array contains multiple peaks, return the index to any of the peaks. You may imagine that numbers [-1] = numbers [n] = -infinity. In other words, an element is always considered to be strictly greater than a neighbor that is outside the array. You must write an algorithm that runs in O (log n) time.

1. LEAST SIGNIFICANT DIGIT (EASY)

Write the python program to display the most & least significant digit of a number.

1. FREQUENCY (EASY)

 Write a python program to find the frequency of each element present in the sample Input and output:

[1, 2, 8, 3, 2, 2, 2, 5, 1]

|  |  |
| --- | --- |
| Element | Frequency |
| 1 | 2 |
| 2 | 4 |
| 8 | 1 |
| 3 | 1 |
| 4 | 1 |

Output: 2&4

a. [9, 10, 8, 3, 4, 5, 9, 8]

b. [1, 2, 4, 2, 5, 2, 5, 1]

c. [91, 10, 81, 33, 44, 55, 91, 81, 44]

d. [0. 1, 0. 2, 0. 1,0. 3, 0. 4, 0.2, 0.1]

e. [-1, -2, 4, -2, 5, 2, 5, -1]

1. To write a program to count all prime and composite numbers from the given test cases. (EASY)
2. Write a program to generate a multiplication table. (EASY)
3. To write a python program using a function to calculate simple interest of the customer. (EASY)
4. To write a python program to display the diagonal elements in a given matrix array and also the sum of diagonals. (EASY)
5. A tech number has even number of digits.If the number is split in two equal halves , then the square of sum of these halves is equal to the number itself.write a program to generate and print all four digit tech numbers.
6. write a python program to remove duplicates present in the ID array.
7. write a program in python to read the elements of a one - dimensional array, compare the elements and find which are the largest two elements in a given array.
8. Define a class taximeter having the following description data members/instance varaiable int taxino-to store taxi number string name to store passengers name int km-to store number of kilometers travelled.travelled
9. write a program in python to convert decimal number to binary number.
10. you are given with an array arr which contains integer elements sort these elements in increasing order and print the middle element of the array.
11. In daily share trading, a buyer buys shares in the morning and sells them on the same day. If the trader is allowed to make at most 2 transactions in a day, whereas the second transaction can only start after the first one is complete (buy\_>sell\_>buy\_>sell).given stock price throughout the day,find out the maximum profit that a share trader could have made.
12. you are given with an array arr which contains integer elements.sort these elements in ascending order if any negative number is found it has to be replaced with the average of an array
13. write a python program to find the mean median and mode of the given number
14. write a python program to find all the the combination of digits of a given number.
15. write a program to generate multiplication table
16. write python program to find L.C.M and G.C.M of three numbers import math
17. write python program to read the numbers until -1 is encountered find the average of positive numbers and negative number entered by  user # Function to calculate the average of a list of numbers
18. give an array of integers nums containing n+1 integers where each integers is in the range [1,n] inclusive there is only one repeated numbers in nums return this repeated number
19. write a python program to print matrix in spiral form .
20. A tech number has even number of digits. If the number is split in two equal halves, then the square of sum of these halves is equal to number itself. Write a problem to generate and print all four digit tech numbers.
21. Find Mth maximum number and Nth minimum number in an array and find sum & difference of it.
22. Write a program in python to read the elements of one - dimensional array, Compare the elements and find which are the largest two elements in a given array.
23. Write a python program to find the frequency of each element present in the sample Input and output :

|  |  |
| --- | --- |
| Element | Frequency |
| 1 | 2 |
| 2 | 4 |
| 8 | 1 |
| 3 | 1 |
| 4 | 1 |

[9, 10, 8, 3, 4, 5, 9, 8]

[1, 2, 4, 2, 5, 2, 5, 1]

[91, 10, 81, 33, 44, 55, 91, 81, 44]

[0. 1, 0. 2, 0. 1,0. 3, 0. 4, 0.2, 0.1]

[-1, -2, 4, -2, 5, 2, 5, -1]

1. Write a python program to print the prime numbers between range from M.
2. .Write a python program to find the square, cube of the given decimal number.
3. Write a Python program to perform Matrix Multiplication
4. Write a python program to print a given matrix in spiral form
5. Write a python programme to take two arrays as input and merge or concatenate two arrays and store the result in third array.
6. write a python program to print all the composite numbers between a&amp;b.
7. You are giving with an array arr contains integer elements. 4.Write a program to display the diagonal elements in a matrix array and also find the sum of them.
8. 3M’ (calculate mean median mode)
9. 6.LSD
10. 8.ADDITIVE:
11. to write a program to count all the prime and composite numbers entered by the user.
12. python program to print a following pattern

+

+ +

+ + +

+ + + +

+ + + + +

1. write a python program using function to calculate the sample interest.. suppose the customer in a senior citizen.he is being offered 12 percentage rate of interest ; for all other customers , the r01 10 percentage.
2. write a python program to find lcm and gcd of three numbers.
3. find the mth maximum number and nth maximum number in an array and find the sum and diffrence of it
4. write a python program to check whether a given year is a leap year or not?
5. write a python program to  merge to sorted arrays in non increasing order?
6. Define a class taximeter having the following description?
7. write a python program to find the number of sentences starts with alphabets B?
8. write a python program to display the diagonal elements in a matrix array and also find the sum of them?
9. write a python program which checks the given number is luck or not?
10. A peak elements is an element that is strictly greater than its neighbours?
11. write a python program to find the maximum total from top to bottom of the triangle below?
12. Find the Mth maximum number and Nth minimum number in an array and then find the sum of it and difference of it.
13. Write a program to count all the prime and composite numbers entered by the user.
14. Write the program to display most and least significant digit of a number
15. Find the program to print the prime numbers between the range from M to N
16. Write the program to check whether a given year is a leap year or not
17. Find the program to the integer n,return the least number of perfect square numbers that sum to n.A perfect square is an integer that is the square of an integer,in other words,it is the product of some integer itself.For example 1,4,9 and 16 are perfect squares while 3 and 11 are not
18. Write the program to print multiplication of 3 matrices
19. Find the program array arr which contains integer elements sort these elements in ascending order if any negative number is found it has to be replaced with the average of an array
20. Given an integer x as numeric data type. Write a python program to return true if x is a palindrome integer.
21. Write a python program to read the number until-1 is encountered . find the average positive number negative numbers entered by the user
22. Write a python program to take two arrays as input and merge or concatenate two arrays and store the result in third array
23. Write a python program to print all the composite numbers between a and b
24. Write a python program using a function to calculate the simple interest. Suppose the customer is a senior citizen, he is being offered 12 % rate of interest for all citizen the ROI is 10%
25. Write a python program to read the number until-1 is encountered . find the average positive number negative numbers entered by the user€
26. Write a python program to check whether a given year is a leap year or not (E)
27. Write a python program to take two arrays as input and merge or concatenate two arrays and store the result in third array€
28. Write a python program to count all the prime and Composite numbers entered by the user €
29. Write a program to display the diagonal elements in a matrix array and also find the sum of them (E)
30. Write a python program to find the frequency of each element present in the array & display highest frequency and respective element in the list (M)
31. Write the python program to find all the combinations of the number 123.
32. To write a program to count all the prime and composite numbers entered by the user
33. Write a python program using function to calculate the sample interest.. suppose the customer in a senior citizen.he is being offered 12 percentage rate of interest ; for all other customers , the r01 10 percentage.
34. Python Program to print all the Composite numbers in between a and B.
35. Find the Mth maximum number and Nth minimum number in an array and find the sum and difference of it

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1. Write a python program to check whether a given year is a leap year or not.
2. Write a python program to find the Mean, Median, Mode of given numbers
3. Find the Mth maximum number and Nth minimum number in an array and find the sum and difference of it
4. Write a program for interesting an element to the array at the specified index
5. Write a python program to read the numbers until-1 is encountered. Find the average of positive numbers and negative numbers entered by user.
6. In daily share trading a buyer buys shares in the morning and sells them on the same day. If the trader is allowed to make at most two transactions in a day, whereas the second transaction can only start after the first one is complete (Buy 🡪 cell 🡪 Buy 🡪 cell). Given stock prices throughout the day, find out the maximum profit that a short trader could have made.
7. Suppose an array of length n sorted in ascending order is rotated between 1 and n times. For example, the array numbers = [0,1,4,4,5,6,7] might become: [4,5,6,7,0,1,4] if it was rotated 4 times. [0,1,4,4,5,6,7] it was rotated 7 times.Notice that rotating an array [a[0], a[1], a[2],….a[a-1]] I time results in the array [a[n-1], a[0], a[1], a[2],…., a[n-2]].Given the sorted rotated array numbers that may contain duplicates return the minimum element of this array.
8. Write a Python program to find whether it contains an addictive sequence or not. The additive sequence is a sequence of numbers where the sum of the first two numbers is equal is equal to the third one.
9. Write a python program to print the given number is perfect number or not?
10. Write a python program to compute the sum of digits of number 220.
11. Write the 3 Ms program mean median mode of the array {16,18,27,23,21,19}
12. Write the python program to find the all the combinations of the number 123.
13. write python program to read the numbers until -1 is encountered find the average of positive numbers and negative number entered by user # Function to calculate the average of a list of numbers 7. To merge to sorted arrays in non-increasing order.
14. Given an integer x as numeric data type. Write a python program to return true if x is palindrome integer. An integer is a palindrome when it reads the same backward as forward.
15. Write a python program to read the elements of a one-dimensional array, compare the elements and find which are the largest two elements in a given array.
16. Perfect number
17. Find the Mth maximum number and Nth minimum number in an array and find the sum and difference of it
18. Perfect Square numbers.
19. Write a python program to print multiplication of 3 matrices.
20. Write a python program to find whether it contains an additive sequence or not.
21. Write a program to generate Multiplication table.
22. Design a class name show room with following description:Intense variables / Data members.
23. Write a python program to calculate discount on the cost of Purchased items, based on the following criteria and display customer name, mobile number, amount to be paid after discount

Cost less than or equal to 10000

Discount 5%.

Cost more than 10000 and less than or equal to = 20000

Discount 10%

Cost more than 10000 and less than or equal to ≥ 35000

Discount 15%.

Cost more than 2 35000

Discount 20%

1. Write a program to display the diagonal elements in the matrix array and also find the sum of them.
2. Write a python program to print the given number is perfect number or not?
3. Given an integer n. return the A perfect square is an in the other words. Least number of perfect square integer that is the square of it is the product of some an integer, integer with itself. For example, 1,4,9 and 16 are prefect squares while 3 and 11 are not.
4. Write a python program to perform matrix multiplication.
5. Write a python program to compute s the sum of digits of number 220.
6. Write a program to take two arrays as input and merge or concatenate two array and store the result in third array.
7. Write and execute python program to merge the sort in non-increasing order.
8. Write python program to print all the composite numbers between a and b.
9. Write python program for inserting an element to the array at the specific index.
10. Write python program to print all the prime numbers between M and N.
11. Write program to print multiplication of 3 matrices.
12. A peak element is an element that is strictly greater than its neighbors.Given a D indexed integer array nums,find a peak elements and return its index.if the array contains multiple peaks return the index of peaks.
13. Write a python program to compute the sum of all multiples of 3 or 5 below 500.
14. write a program in Python to convert decimal numbers to binary input decimal is 65 output binary is 1000001
15. write a program in Python to convert decimal numbers to binary input decimal is 65 output binary is 1000001
16. write a program to display the diagonal elements in a matrix array and also find the sum of them.
17. Write a Python program to take two arrays as input merge and concatenate two arrays and store the result in a third array.
18. 35) Define a class taximeter with the following description:

class Taximeter:

def \_init\_ (self, base\_fare, per\_km\_rate, per\_minute\_rate):

self.base\_fare = base\_fare

self.per\_km\_rate = per\_km\_rate

self.per\_minute\_rate = per\_minute\_rate

self.total\_distance = 0

self.total\_time = 0

self.total\_fare = 0

1. Print the given number is a perfect number or not
2. Two integers’ arrays nums1 and nums2, each element in the result appears as many times in both array's input and output
3. Write Integers number sorted in non-decreasing order ending position.
4. Write a program for a Sum of the digits of the number.
5. Given a positive integer N". The task is to find 1^2+2^2+3^2+………N^2
6. Write a python program to print the given number is perfect number or not
7. You are given an array arr which contains integer elements. Sort these elements in increasing order and print the middle element of the array
8. write a python program to print all the composite numbers between a and b
9. write a python program to generate multiplication table.
10. write a phyton program to perform matrix multiplication?
11. Given an m\*n matrix, Find the row sum, column sum and diagonal sum of elements.
12. Write a python program to print the following pattern

Sample input;

Enter the character to be printed: +

No. of rows = 5

+

++

+++

++++

+++++

1. Write the 3 Ms program mean median mode of the array {16,18,27,23,21,19}
2. Write the python program to find the all the combinations of the number 123.
3. check weather is a tech number of the python program input 3025.