Surprise!

Instruction:
Try the first program first. It carries the maximum number of marks!
Next, try the next ones in that order
(in simpler terms, the weightage reduces with the order of questions - so, try to solve the first ones!)

1. 'Fourte' is a math game by Jambav (search in google playstore) - https://play.google.com/store/apps/details?id=com.jambav.fourte&hl=en_IN&gl=US

Kindly download it, give it a try - play it for a while - understand the game and write a program to reverse engineer the gameplay.

i.e. the gameplay is,
you are given four numbers, four operators with brackets and a resultant number.
combination of the numbers (joint or individually) along with the operators make the resultant number.
the gameplay is to figure out the number combinations with the operator.

write a program to find out the answer to the game!

2. Write a program to find the first 10 fibonacci numbers that are also prime

3. Write a program to check whether the given two strings are anagrams of each other.

Example: String 1: Listen String 2: Silent

The result: Given strings are anagrams of each other.

4. Given an array of integers and a positive integer k, determine the number of (i,j) pairs where i < j and ar[i] + ar[j] is divisible by k.

Constraints:

2 <= n <= 100

1 <= k <= 100

1 <= ar[i] <= 100

Example :-

ar = [1,2,3,4,5,6]

Surprise!

k = 5

Three pairs meet the criteria:[1,4],[2,3] and [4,6]