

# [The last ride together essay sample](https://assignbuster.com/the-last-ride-together-essay-sample/)

[](https://assignbuster.com/)[Science](https://assignbuster.com/essay-subjects/science/), [Mathematics](https://assignbuster.com/essay-subjects/science/mathematics/)

Question 1:

Write a program to input a start limit S (S> 0) and the last limit L (L> 0). Print all the prime triplets between S and L (both inclusive), if S <= L otherwise your program should ask to re-enter the values of S and L again with a suitable error message.

Algorithm:   
\* Start   
\* To input the lower limit   
\* To input the upper limit   
\* To run the outer loop   
\* To run inner loop   
\* To calculate total number of prime numbers between lower and upper limits   
\* To declare array with it’s number of elements as ‘ s’   
\* To run the outer loop   
\* To run the inner loop   
\* To store the prime numbers in array a[]   
\* To run a loop for every position of array a[]   
\* If condition matches for the number for prime triplets   
\* Continue till all Prime Triplets are printed

Question 2:

A unique digit integer is a positive integer (without leading zeros) with no duplicate digits. For example 7, 135, 214 are all unique digit integers whereas 33, 3121, 300 are not. Given two positive integers m and n, where m

Algorithm:

\* Start   
\* To input the starting limit   
\* To input the last limit   
\* To run the outer loop   
\* To store the value of ‘ i’ as a string   
\* To run the inner loop   
\* To run a nested loop of the inner loop   
\* To check for repetition of any digit in the number   
\* To store all the unique digit integers in a string   
\* To store the frequency of unique digit integers   
\* To print the unique digit integers and their frequency

Question 3:

Write a program which inputs Natural numbers N and M followed by integer arrays A[ ] and B[ ], each consisting of N and M numbers of elements respectively. Sort the arrays A[ ] and B[ ] in Ascending order of magnitude. Use the sorted arrays A[ ] and B[ ] to generate a merged array C[ ] such that the elements of A[ ] and B[ ] appears in C[ ] in Ascending order without any duplicate elements. Sorting of array C[ ] is not allowed.

Algorithm:

\* Start   
\* To enter the limit of first array (<21)   
\* To enter the limit of the second array (<21)   
\* To run a loop   
\* To enter the two arrays   
\* To sort the two arrays using bubble sort technique   
\* To copy the two arrays into a single array   
\* To sort the merged array using bubble sort technique   
\* To run a loop   
\* To print the elements of the i-th position   
\* To go to the next index of the next number

Question 4:

Write a program to input and store n integers (n > 0) in a single subscripted variable and print each number with their frequencies of existence. The output should contain number, asterisk symbol and its frequency and be displayed in separate lines.

Algorithm:

\* Start   
\* To enter capacity   
\* To enter the numbers in an array   
\* To run outer loop   
\* To run inner loop   
\* To sort the numbers in the array   
\* To run outer loop   
\* To run inner loop   
\* To transfer the values of the array in another array   
\* To check frequency and print

Question 5:

Write a program to input an arithmetic expression in String form which contains only one operator between two numeric operands. Print the output in the form of number. ( If more than one operators are present, an error output message “ INVALID EXPRESSION” should appear).