**ZOHO ENRICH QUESTIONS**

1. Find the sum of three numbers using   
  
i) Three variables   
ii) Array   
iii) a function call

2. Write a program to print the number series (AP or GP) based on the input   
  
I/P   
N:5   
S:2   
D:3   
Type: AP   
  
O/P   
2, 5, 8, 11, 14   
  
I/P   
N:5   
S:2   
D:3   
Type: GP   
  
2, 6, 18, 54, 162

3. Write a program to construct AP series with 'N' numbers. Given the start number 'S' and the difference 'D'.   
  
I/P   
N: 5   
S: 2   
D: 3   
  
O/P   
2, 5, 8, 11, 14   
  
I/P   
N: 6   
S:1   
D:10   
  
O/P   
1,11, 21, 31, 41, 51

4.Find the index of a given number from a SORTED Array using [#binary-search](https://connect.zoho.com/portal/intranet/groups/bootcamp#tags/binary-search)   
  
I/P   
Array: 1, 3, 5, 7, 8, 9   
Number: 3   
  
O/P: 1

5. Find the index of a given number from a given array.

i) Pass the array and the number to a function "inArray"   
ii) The function should return the index of the first match.   
iii) The function should return if the number is not found in the array.   
  
I/P   
Array: 2, 5, 4, 10, 9, 8, 5   
Number : 5   
  
O/P: 1   
  
I/P   
Array: 2, 5, 4, 10, 9, 8, 5   
Number : 3   
  
O/P: -1

6. What is the best approach to find the index of a given number in a AP or GP series?  (One word) Ans : Binary Search

7. You will be given a sorted integer array A of size N. You will also given a number X. You need to print the index of the least number that is greater than X. If there are multiple integers that satisfy this condition, print the highest index. If there is not any index that satisfies this condition, print -1.

Input   
Array  [1 2 2 2 3 4 4]   
  
Ex1:   
X : 2   
O/P: 4 (index of 3)   
  
Ex2:   
X:4   
O/P: -1   
  
Ex3:   
X:3   
O/P: 5

8.

Insert a given number into an array at the specified index.   
  
Ex:   
  
Array : [ 1, 10, 20, 35, 19 ]   
Number : 9   
index : 2   
  
O/P : [ 1, 10, 9, 20, 35, 19]   
  
Try with just arrays. No Linked lists.

9. Class Room Exercise 1 [ 5/3/2016 ]

Find the number of variables in a given equation?   
  
Ex1:   
I/P: A+(B/2)+C   
O/P: 3   
  
I/P: A+(B/2)+(B\*A)   
O/P: 2

10. Swap the lower and higher digit half of a given number

Ex1   
I/P: 12345   
O/P: 45312   
  
Ex2:   
I/P: 123456   
O/P: 456123

Try with array and without using array.