Topic:- Recursion

Question 1

. Write a program to find x to the power n (i.e. x^n). Take x and n from the user. You need to return the answer.

Do this recursively.

Input format :

Two integers x and n (separated by space)

Output Format :

x^n (i.e. x raise to the power n)

Sample Input 1 :

3 4

Sample Output 1 :

81

Question 2

. Write a program to print numbers from 1 to n in increasing order recursively.

Sample Input 1 :

6

Sample Output 1 :

1 2 3 4 5 6

Question 3

. Write a program to find out and return the number of digits present in a number recursively.

Sample Input 1 :

156

Sample Output 1 :

3

Sample Input 2 :

7

Sample Output 2 :

1

Question 4

. Write a program to find and return the sum of all elements of the array. Do this recursively.

Sample Input 1 :

3

9 8 9

Sample Output 1 :

26

Sample Input 2 :

3

4 2 1

Sample Output 2 :

7

Question 5

. Create an array of 5 elements with values {1,2,4,2,6}.search value 2 in the given array and print the first occurrence(index) of search value. Do it recursively

The prototype of the method is as follows

public static int find(int arr[ ], int currentIndex, int search\_value)

{

// set of statements;

}

Question 6

. Create an array of 5 elements with values {1,7,4,7,6}.Search value 7 in the given array and print all the occurrence(index) of search value(7) by holding the index in a result array . Do it recursively

The prototype of the method is as follows:-

public static int[] res(int arr[], int current index, int search\_value)

{

// set of statements;

}