**DIVIDE AND CONQUER**

PROBLEM 4:

4-TWO ELEMENTS SUM TO X

AIM:

Given a sorted array of integers say arr[] and a number x. Write a recursive program using divide and conquer strategy to check if there exist two elements in the array whose sum = x. If there exist such two elements then return the numbers, otherwise print as “No”.

CODE:  
#include<stdio.h>

void findpair(int arr[], int left, int right, int x){

if(left>=right){

printf("No\n");

return;

}

int sum = arr[left] + arr[right];

if(sum ==x){

printf("%d\n",arr[left]);

printf("%d\n",arr[right]);

return;

}

else if(sum< x){

findpair(arr,left+1,right,x);

}

else{

findpair(arr,left,right-1,x);

}

}

int main(){

int n,x;

scanf("%d",&n);

int arr[n];

for(int i=0; i<n;i++){

scanf("%d",&arr[i]);

}

scanf("%d",&x);

findpair(arr,0,n-1,x);

return 0;

}

INPUT OUTPUT:  
