//MADIAN FINDING

#include<stdio.h>

int median(int arr[],int n)

{

int middle=n/2;

if(n%2==0)

return (arr[middle]+arr[middle+1])/2 ;

else

return arr[middle];

}

int max(int val1,int val2)

{

if(val1>val2)

return val1;

else

return val2;

}

int min(int val1,int val2)

{

if(val1>val2)

return val2;

else

return val1;

}

int getmedian(int arr1[],int arr2[],int n)

{

int m1,m2;

if(n==1)

return (arr1[0]+arr2[0])/2;

if(n==2)

return (max(arr1[0],arr2[0])+min(arr1[1],arr2[1]))/2;

m1=median(arr1,n);

m2=median(arr2,n);

if(m1<m2)

{

if(n%2==0)

return getmedian(arr1+(n/2-1),arr2,n-n/2+1);

return getmedian(arr1+(n/2),arr2,n-n/2);

}

else

{ if(n%2==0)

return getmedian(arr1,arr2+(n/2-1),n-n/2+1);

return getmedian(arr1,arr2+(n/2),n-n/2);

}

}

void main()

{

printf("Enter the number of values :");

int n,i;

scanf("%d",&n);

int arr1[n],arr2[n];

printf("Enter the elements for array1\n");

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

{

scanf("%d",&arr1[i]);

}

printf("Enter the elements for array2\n");

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

{

scanf("%d",&arr2[i]);

}

printf("The median is :%d\n",getmedian(arr1,arr2,n));

}