**COMPETITIVE PROGRAMMING**

**PROBLEM 1:**

FINDING DUPLICATES-O(N^2) TIME COMPLEXITY,O(1) SPACE COMPLEXITY

AIM:  
Find Duplicate in Array.

Given a read only array of n integers between 1 and n, find one number that repeats.

CODE:

#include <stdio.h>

int main() {

int n;

scanf("%d", &n);

int arr[n];

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

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

}

for (int i = 0; i < n - 1; i++)

{

for (int j = i + 1; j < n; j++)

{

if (arr[i] == arr[j]) {

printf("%d ", arr[i]);

break;

}

}

}

return 0;

}

INPUT AND OUTPUT:  
