MEDIUM

Max Score: 40 Points

Hashing for Pair

You are given an array arr (distinct integers) of size n, and you are also given a sum. You need to find if two numbers in arr exists that have sum equal to the given sum.

Input Format

The first line contains two integers n and sum denoting size of array and target value.

Next line contains n separated integers denoting elements of array.

Output Format

Print "1"(without quotes) if any pair found, othwerwise print "0"(without quotes) if not found.

Example 1

Input

```
4 9
2 7 5 11
```

Output

```
1
```

Explanation

2 + 7 = 9

Example 2

Input

```
1 2 3 4
6
```

Output

```
0
```

Explanation

No two elements sums to 6.

Constraints

1 <= n <= 10^5

1 <= sum <= 10^5

1 <= arr[i] <= 10^4

My code

// in java
import java.util.*;
import java.lang.*;
import java.io.*;

public class Main

```java
{
    public static void main (String[] args) throws
java.lang.Exception
    {
        //your code here
    Scanner s=new Scanner(System.in);
    int n=s.nextInt();
     int m=s.nextInt();
    int arr[]=new int[n];
    for(int i=0;i<n;i++)
       arr[i]=s.nextInt();
    HashSet<Integer> hm=new HashSet<>();
    int c=0;
       for(int i=0;i<n;i++)
        {
          if(hm.contains(arr[i]))
          {System.out.print("1");c=1;break;}
          else hm.add(m-arr[i]);
        }
    if(c==0) System.out.print("0");



        }
}
```