Code : C++

```cpp
#include <bits/stdc++.h>
#include <iostream>
using namespace std;

void fillPrefixSuffix(int prefix[],int arr[],int suffix[],int n)
{
    prefix[0] = arr[0];
    for(int i=1;i<n;i++)
        prefix[i] = __gcd(prefix[i-1],arr[i]);

    suffix[n-1] = arr[n-1];

    for(int i=n-2;i>=0;i--)
        suffix[i] = __gcd(suffix[i+1],arr[i]);
}

int GCDoutsideRange(int l,int r,int prefix[],int suffix[],int n){
  if(l==0)
        return suffix[r+1];
  if(r==(n-1))
        return prefix[l-1];
  return __gcd(prefix[l-1],suffix[r+1]);
}

int main() {
  // your code goes here
  int t;
  cin>>t;
  while(t--){
        int n;
        cin>>n;

        int prefix[n] , suffix[n];
        int arr[n];
        for(int i=0;i<n;i++)
        cin>>arr[i];
        fillPrefixSuffix(prefix,arr,suffix,n);
        int ans = 0;
        for(int i = 0 ; i<n;i++){
                if(GCDoutsideRange(i,i,prefix,suffix,n)>1){ ans++; }
        }
        cout<<ans<<endl;
  }
  return 0;
}
```