

The G++ Programming Language

The G++ Programming Language works the same way as C++, but it has the following differences:

- no ";" at the end of each line
- replace "&&" with "and" and "||" with "or"
- whenever you have a statement you must always use "{" and "}"

PROBLEM 1

- compute the sum of 2 numbers

```
#include <iostream>
```

```
using namespace std
```

```
// compute the sum of 2 numbers
```

```
int main()
```

```
{
```

```
    int a, b
```

```
    cin >> a >> b
```

```
    cout << a + b
```

```
    return 0
```

```
}
```

PROBLEM 2

- in given number n, replace all occurrences of digit c1 with digit c2

```
#include <iostream>
```

```
using namespace std
```

```
long long a,n,c1,c2,nr,p=1
```

```
// replace c1 with c2(digits) in n
```

```
int main()
```

```
{
```

```
    cin>>n>>c1>>c2
```

```
    while(n != 0)
```

```
    {
```

```
        a = n%10
```

```
        if(a==c1)
```

```
        {
```

```
            nr=nr+c2*p
```

```
        }
```

```
        else
```

```
        {
```

```
            nr=nr+a*p
```

```
        }
```

```
        n=n/10
```

```
        p=p*10
```

```
    }
```

```

    if(n==0 && c1==0)
    {
        cout<<c2
    }
    else
    {
        cout<<nr
    }
    return 0
}

```

PROBLEM 3

- find the biggest natural number that has the sum of it's digits and the total number of digits equal with the sum of digits of n

```
#include <iostream>
```

```
using namespace std
```

```
// find the biggest natural number that has the sum of it's digits and the total
```

```
// number of digits equal with the sum of digits of n
```

```
int main()
```

```

{
    int n, sumac=0, nrcif=0
    cin>>n
    while(n>0)
    {
        sumac=sumac+n%10
        n=n/10;
    }
    nrcif=sumac
    while(nrcif > 0)
    {
        if(sumac>=9)
        {
            cout<<9
            sumac=sumac-9
        }
        else
        {
            cout<<sumac
            sumac=0
        }
        nrcif--
    }
    return 0
}

```

PROBLEM 4 - syntax errors

- sort an array using quick_sort

```
#include <bits/stdc++.h>
```

```
using namespace std
```

```
// sort an array using quick_sort
void quick_sort( int v[100005],int st,int dr)
{
    int i=st,j=dr,p=v[(i+j)/2]
    while(i<=j)
    {
        while(v[i]<p) // missing "{" and}"
            i++
        while(v[j]>p) // missing "{" and}"
            j--
        if(i<=j)
        {
            swap(v[i],v[j])
            i++
            j--
        }
    }
    if(st<j)
        quick_sort(v,st,j)
    if(dr>i)
        quick_sort(v,i,dr)
}
```

```
int main()
{
    int n, v[100005]; // wrong syntax
    cin>>n; // wrong syntax
    for(int i=1;i<=n;i++)
    {
        cin>>v[i]
    }
    quick_sort(v,1,n)
    for(int i=1;i<=n;i++)
    {
        cout<<v[i]<<' '
    }
    return 0
}
```