

1.

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

```
using namespace std;
```

```
void f(char* S)
```

```
{
```

```
    if (S[0] == '\0')
```

```
        return;
```

```
    if (S[0] == S[1]) {
```

```
        int i = 0;
```

```
        while (S[i] != '\0') {
```

```
            S[i] = S[i + 1];
```

```
            i++;
```

```
        }
```

```
        f(S);
```

```
    }
```

```
f(S + 1);  
}
```

```
int main()
```

```
{
```

```
    char S[] = "kishanmishra";
```

```
    f(S);
```

```
    cout << S << endl;
```

```
    return 0;
```

```
}
```

2.

```
int f1(int arr[], int size)
```

```
{
```

```
    int max_ending_here = 0, max_so_far = INT_MIN;
```

```
    for (int i = 0; i < size; i++) {
```

```
        if (arr[i] <= max_ending_here + arr[i]) {
```

```
            max_ending_here += arr[i];
```

```
        }
```

```

        else {
            max_ending_here = arr[i];
        }

        if (max_ending_here > max_so_far)
            max_so_far = max_ending_here;
    }

    return max_so_far;
}

```

```

int main()
{

    int a[] = {0,1,2, 4, -1, -2, 1, 5, -3};

    int n = sizeof(a)/sizeof(a[0]);

    int max_sum = f1(a, n);

    cout << "Maximum contiguous sum is " << max_sum;

    return 0;

}

```

3.

```
#include<iostream>
```

```
using namespace std;
```

```
int removeDuplicates(int arr[], int n)
```

```
{
```

```
    if (n==0 || n==1)
```

```
        return n;
```

```
    int j = 0;
```

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

```
        if (arr[i] != arr[i+1])
```

```
            arr[j++] = arr[i];
```

```
    arr[j++] = arr[n-1];
```

```
    return j;
```

```
}
```

```
int main()
```

```
{
```

```
    int arr[] = {1,0,2,3, 4, 4, 4, 5, 5};
```

```
    int n = sizeof(arr) / sizeof(arr[0]);
```

```
n = removeDuplicates(arr, n);
```

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

```
    cout << arr[i] << " ";
```

```
return 0;
```

```
}
```