

```
#include <algorithm>
```

```
class Sequence {
```

```
private:
```

```
    int length;
```

```
    int* pseq;
```

```
public:
```

```
    Sequence() : length(10), pseq(new int[length]) {
```

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

```
            pseq[i] = 0;
```

```
        }
```

```
    }
```

```
    Sequence(int lengthVal, int n1=0, int n2=0, int n3=0, int n4=0, int n5=0, int  
n6=0, int n7=0,
```

```
        int n8=0, int n9=0, int n10=0) : length(lengthVal), pseq(new int[length]) {
```

```
        int nums[10] = {n1, n2, n3, n4, n5, n6, n7, n8, n9, n10};
```

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

```
            pseq[i] = nums[i];
```

```
        }
```

```
    }
```

```
    Sequence(const Sequence& s) : length(s.length), pseq(new int[length]) {
```

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

```
            pseq[i] = s.pseq[i];
```

```
        }
```

```
    }
```

```
    ~Sequence() {
```

```
        delete[] pseq;
```

```
    }
```

```
    int getLength() const {
```

```
        return length;
```

```
    }
```

```
    int* getSeq() const {
```

```
    return pseq;  
}
```

```
void Sort(int n) {  
    std::sort(pseq, pseq + n);  
}
```

```
int RemoveDuplicates() {  
    if (length <= 1) {  
        return length;  
    }
```

```
    int uniqueCount = 1;  
    for (int i = 1; i < length; i++) {  
        if (pseq[i] != pseq[uniqueCount - 1]) {  
            pseq[uniqueCount++] = pseq[i];  
        }  
    }
```

```
    return uniqueCount;  
}
```

```
void Rotate(int steps) {  
    if (length <= 1 || steps <= 0) {  
        return;  
    }
```

```
    steps %= length;
```

```
    // Reverse the entire sequence  
    std::reverse(pseq, pseq + length);
```

```
    // Reverse the first 'steps' elements  
    std::reverse(pseq, pseq + steps);
```

```
    // Reverse the remaining elements
```