

```
1 #include <stack>
2 #include <queue>
3 #include <iostream>
4
5 using namespace std;
6
7 template <typename T>
8
9 class queue2{
10
11     private:
12         stack<T> frente;
13         stack<T> atras;
14
15     public:
16         //vacío
17         bool empty() const{
18             return this->frente.empty();
19         }
20         //tamaño
21         int size() const{
22             return this->frente.size();
23         }
24         //front
25         const T& front() const {
26             return this->atras.top();
27         }
28         //back
29         const T& back() const {
30             return this->frente.top();
31         }
32         //push
33         void push(const T & nuevo){
34             this->frente.push(nuevo);
35             stack<T> aux,aux2;
36             aux2=this->frente;
37             while(!aux2.empty()){
38                 aux.push(aux2.top());
39                 aux2.pop();
40             }
41             this->atras=aux;
42         }
43         //pop
44         void pop(){
45             this->atras.pop();
46             stack<T> aux,aux2;
47             aux2=this->atras;
48             while(!aux2.empty()){
49                 aux.push(aux2.top());
50                 aux2.pop();
51             }
52             this->frente=aux;
53         }
54 };
55
56 int main(){
57     queue<int> una;
58
59     una.push(5);
60     una.push(7);
```

```
61     una.push(3);
62     una.push(5);
63     una.push(8);
64     una.push(3);
65
66     while(!una.empty())
67     {
68         cout<<una.front()<<" ";
69         una.pop();
70     }
71     cout << endl;
72     queue2<int> otro;
73
74     otro.push(5);
75     otro.push(7);
76     otro.push(3);
77     otro.push(5);
78     otro.push(8);
79     otro.push(3);
80     cout << otro.size() << endl;
81
82     while(!otro.empty())
83     {
84         cout<<otro.front()<<" ";
85         otro.pop();
86     }
87 }
```