

Q by 2 stack

```
import java.util.*;  
  
class Q {  
  
    Stack<Integer> in = new Stack<>();  
    Stack<Integer> out = new Stack<>();  
  
    void add(int x) {  
        in.push(x);}  
  
    int remove() {  
        shift();  
        return out.pop();    }  
  
    int peek() {  
        shift();  
        return out.peek();}  
  
    boolean isEmpty() {  
        return in.isEmpty() && out.isEmpty();}  
  
    void shift() {  
        if (out.isEmpty())  
            while (!in.isEmpty())  
                out.push(in.pop());}}
```

```
import java.util.*;  
  
class Stack {  
  
    Queue<Integer> q1 = new LinkedList<>();  
    Queue<Integer> q2 = new LinkedList<>();  
  
  
    void push(int x) {  
        q2.add(x);  
  
        while (!q1.isEmpty()) {  
            q2.add(q1.remove());}  
  
        // swap  
  
        Queue<Integer> temp = q1;  
        q1 = q2;  
        q2 = temp;}  
  
  
    int pop() {  
        return q1.remove();}  
  
  
    int peek() {  
        return q1.peek();}  
  
  
    boolean isEmpty() {  
        return q1.isEmpty();}}
```