

Liste

```
class Elem {
```

```
    private int value;
```

```
    private Elem next;
```

```
    public Elem (int value) {
```

```
        this.value = value;
```

```
        this.next = null;}
```

```
    public int getValue () {
```

```
        return value;}
```

```
    public void setValue (int dato) {
```

```
        this.value = dato;}
```

```
    public Elem getNext () {
```

```
        return next;}
```

```
    public void setNext (Elem next){
```

```
        this.next = next;}
```

```
public class IntList {
```

```
    private Elem list; // pointer
```

```
    private int length;
```

```
    public IntList () {
```

```
        this.list = null;
```

```
        this.length = 0;}
```

```
    public int size () {
```

```
        return length;
```

```
public void addFirst (int x) {
```

```
    Elem newElem = new Elem (x);
```

```
    newElem.setNext (this.list);
```

```
    list = new Elem;
```

```
    length ++; }
```

```
public int removeFirst () {
```

```
    if (list == null) {
```

```
        throw new RuntimeException(); }
```

```
    int v = list.getValue();
```

```
    this.list = this.list.getNext();
```

```
    length --;
```

```
    return v; }
```

```
public boolean contains (int elem) {
```

```
public void addLast (int x) {
```

```
public void removeLast () {
```

```
public String toString () {
```