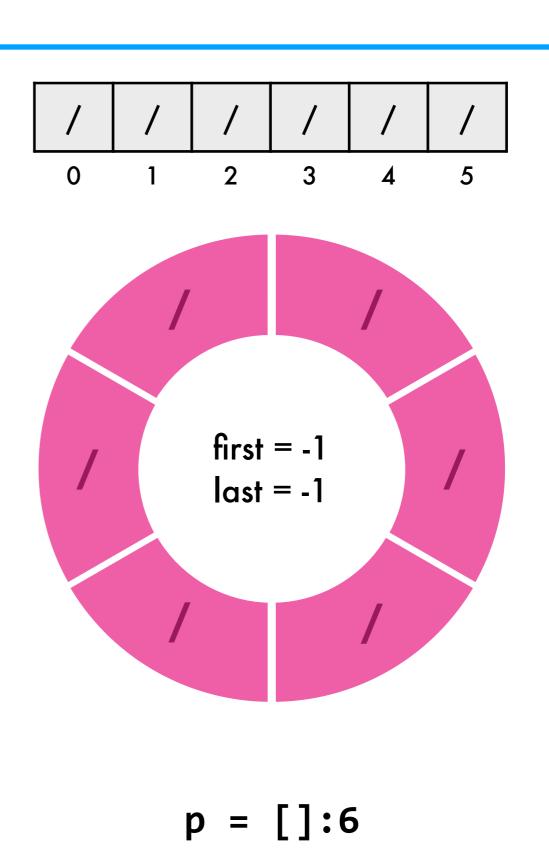
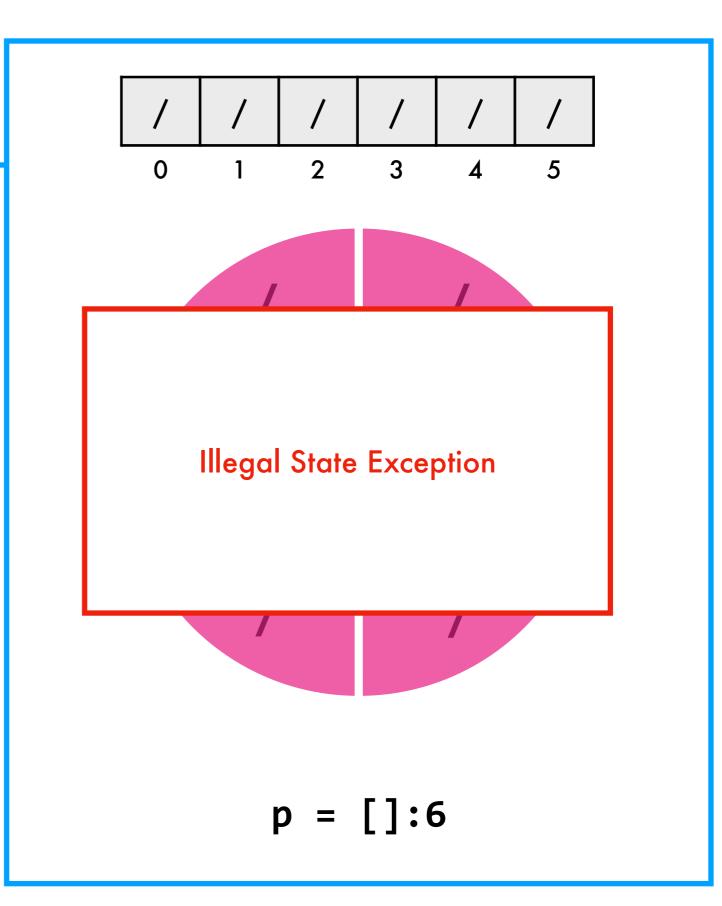
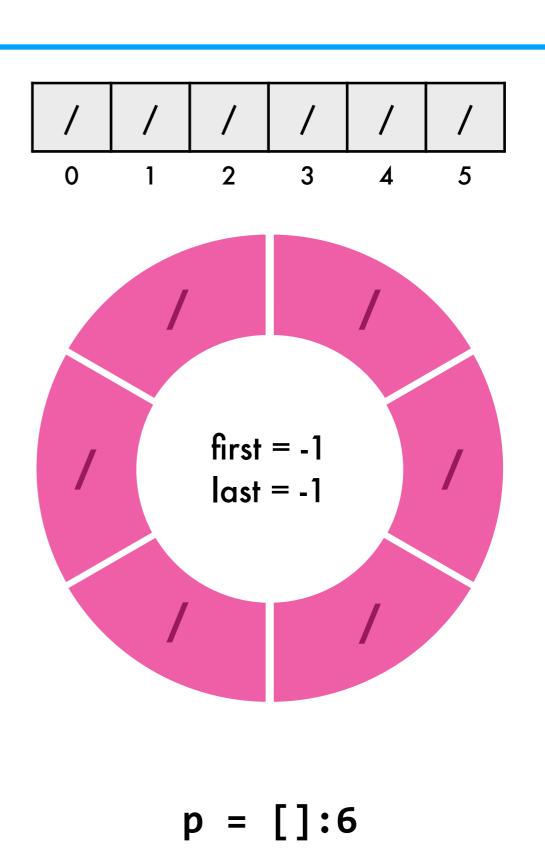
```
Pipe<String> p =
  new CircArrayPipe<>(6);
p.removeFirst();
p.append(null);
p.append("A");
p.append("B");
p.append("C");
p.prepend("X");
p.prepend("Y");
p.prepend("Z");
p.append("Q");
p.removeFirst();
p.removeLast();
p.removeFirst();
p.append("Q");
```



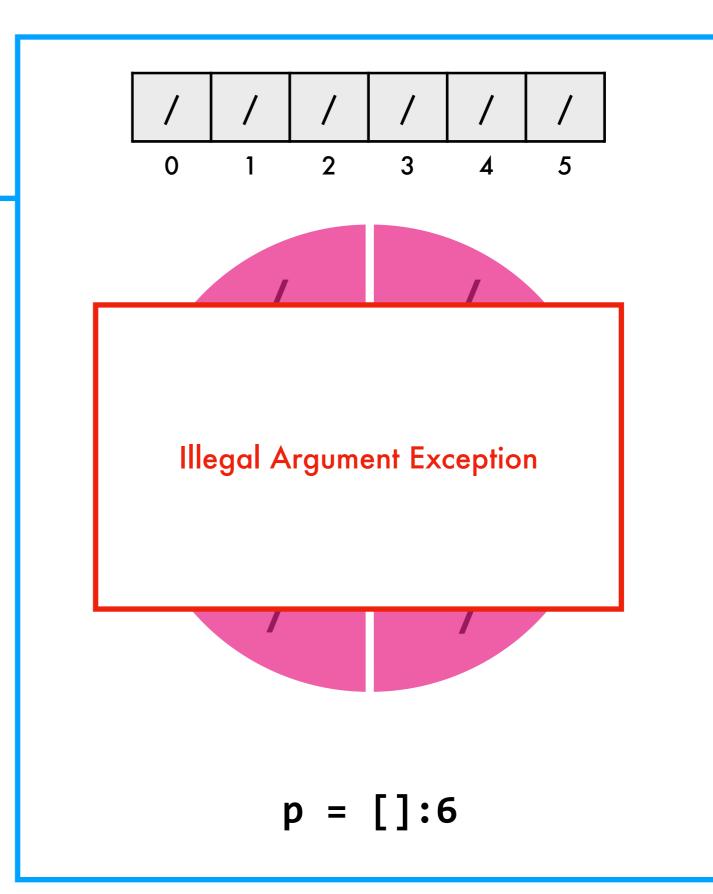
```
Pipe<String> p =
  new CircArrayPipe<>(6);
p.removeFirst();
p.append(null);
p.append("A");
p.append("B");
p.append("C");
p.prepend("X");
p.prepend("Y");
p.prepend("Z");
p.append("Q");
p.removeFirst();
p.removeLast();
p.removeFirst();
p.append("Q");
```



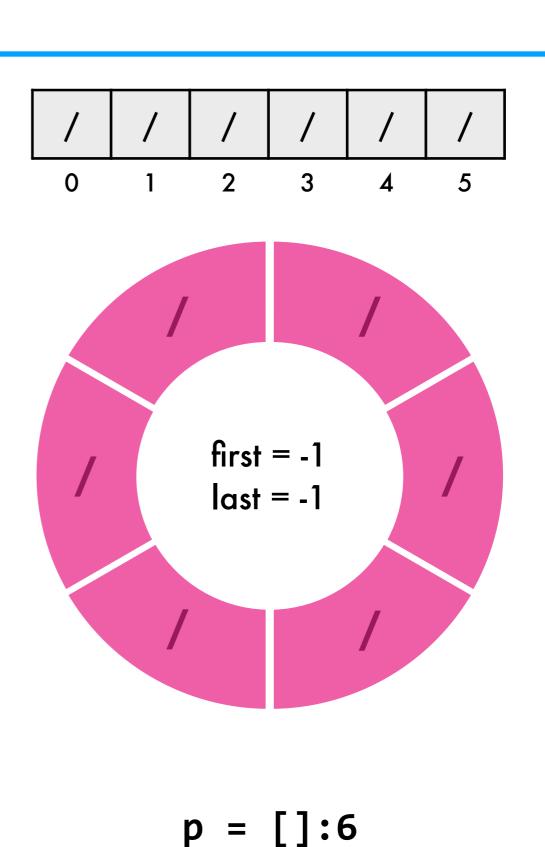
```
Pipe<String> p =
  new CircArrayPipe<>(6);
p.removeFirst();
p.append(null);
p.append("A");
p.append("B");
p.append("C");
p.prepend("X");
p.prepend("Y");
p.prepend("Z");
p.append("Q");
p.removeFirst();
p.removeLast();
p.removeFirst();
p.append("Q");
```



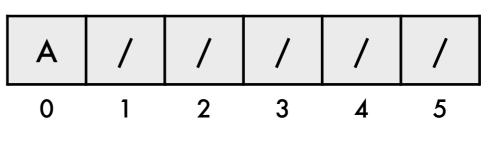
```
Pipe<String> p =
  new CircArrayPipe<>(6);
p.removeFirst();
p.append(null);
p.append("A");
p.append("B");
p.append("C");
p.prepend("X");
p.prepend("Y");
p.prepend("Z");
p.append("Q");
p.removeFirst();
p.removeLast();
p.removeFirst();
p.append("Q");
```

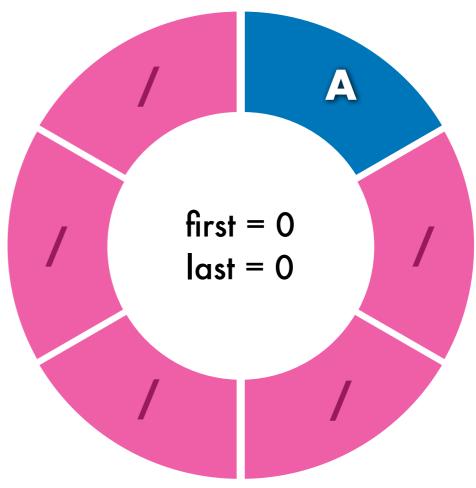


```
Pipe<String> p =
  new CircArrayPipe<>(6);
p.removeFirst();
p.append(null);
p.append("A");
p.append("B");
p.append("C");
p.prepend("X");
p.prepend("Y");
p.prepend("Z");
p.append("Q");
p.removeFirst();
p.removeLast();
p.removeFirst();
p.append("Q");
```



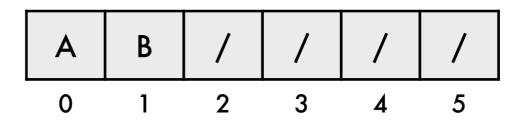
```
Pipe<String> p =
  new CircArrayPipe<>(6);
p.removeFirst();
p.append(null);
p.append("A");
p.append("B");
p.append("C");
p.prepend("X");
p.prepend("Y");
p.prepend("Z");
p.append("Q");
p.removeFirst();
p.removeLast();
p.removeFirst();
p.append("Q");
```

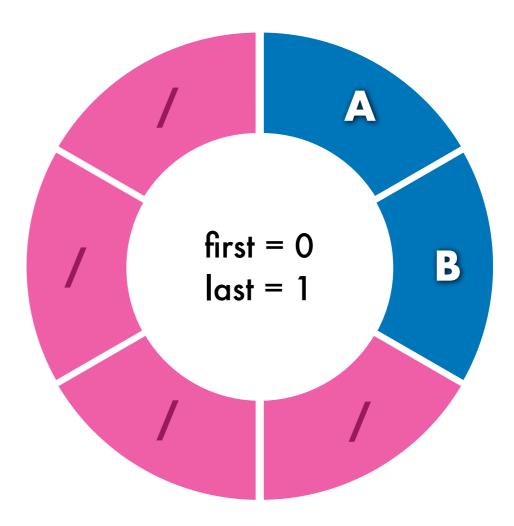




$$p = [A]:6$$

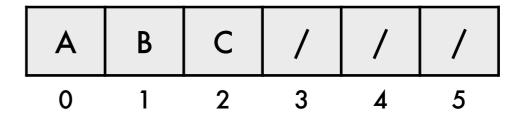
```
Pipe<String> p =
  new CircArrayPipe<>(6);
p.removeFirst();
p.append(null);
p.append("A");
p.append("B");
p.append("C");
p.prepend("X");
p.prepend("Y");
p.prepend("Z");
p.append("Q");
p.removeFirst();
p.removeLast();
p.removeFirst();
p.append("Q");
```

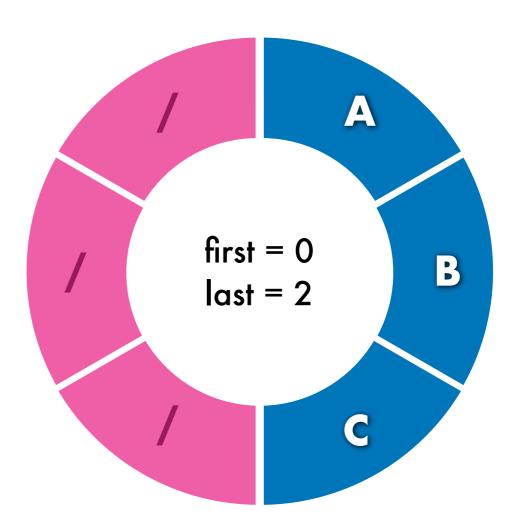




$$p = [A,B]:6$$

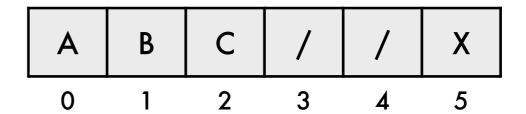
```
Pipe<String> p =
  new CircArrayPipe<>(6);
p.removeFirst();
p.append(null);
p.append("A");
p.append("B");
p.append("C");
p.prepend("X");
p.prepend("Y");
p.prepend("Z");
p.append("Q");
p.removeFirst();
p.removeLast();
p.removeFirst();
p.append("Q");
```

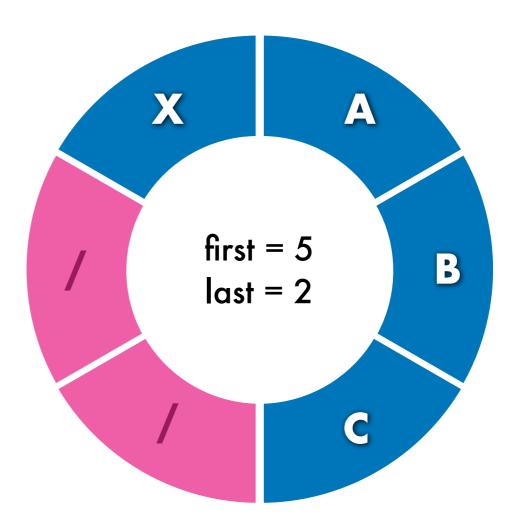




$$p = [A,B,C]:6$$

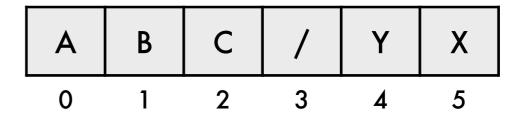
```
Pipe<String> p =
  new CircArrayPipe<>(6);
p.removeFirst();
p.append(null);
p.append("A");
p.append("B");
p.append("C");
p.prepend("X");
p.prepend("Y");
p.prepend("Z");
p.append("Q");
p.removeFirst();
p.removeLast();
p.removeFirst();
p.append("Q");
```

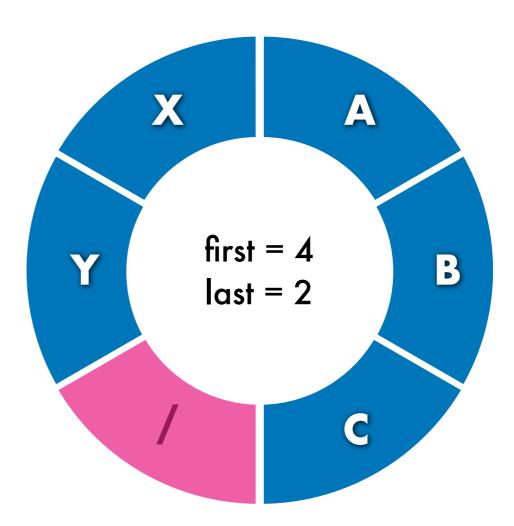




$$p = [X,A,B,C]:6$$

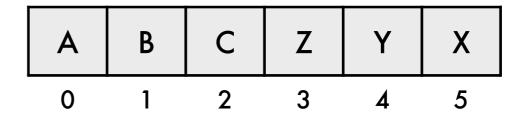
```
Pipe<String> p =
  new CircArrayPipe<>(6);
p.removeFirst();
p.append(null);
p.append("A");
p.append("B");
p.append("C");
p.prepend("X");
p.prepend("Y");
p.prepend("Z");
p.append("Q");
p.removeFirst();
p.removeLast();
p.removeFirst();
p.append("Q");
```

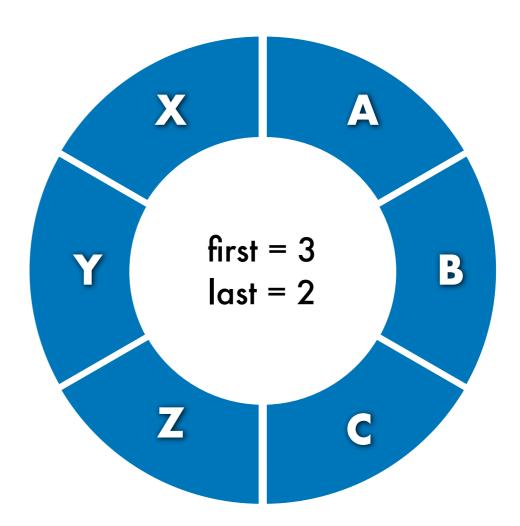




$$p = [Y, X, A, B, C]:6$$

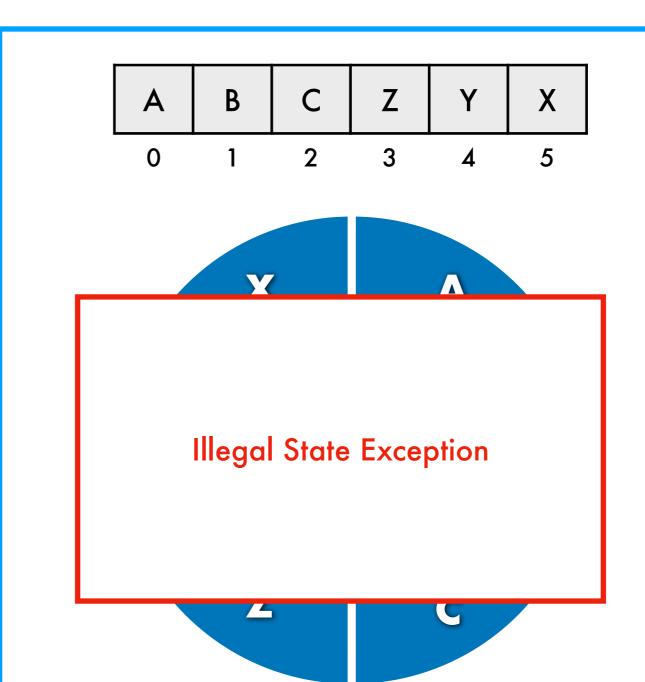
```
Pipe<String> p =
  new CircArrayPipe<>(6);
p.removeFirst();
p.append(null);
p.append("A");
p.append("B");
p.append("C");
p.prepend("X");
p.prepend("Y");
p.prepend("Z");
p.append("Q");
p.removeFirst();
p.removeLast();
p.removeFirst();
p.append("Q");
```





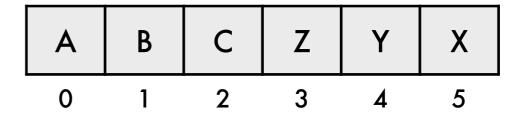
$$p = [Z,Y,X,A,B,C]:6$$

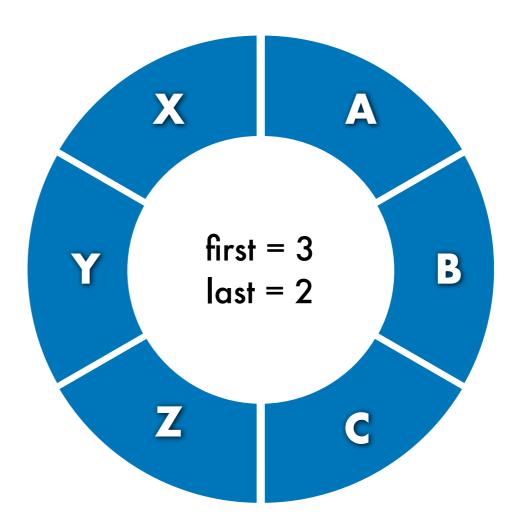
```
Pipe<String> p =
  new CircArrayPipe<>(6);
p.removeFirst();
p.append(null);
p.append("A");
p.append("B");
p.append("C");
p.prepend("X");
p.prepend("Y");
p.prepend("Z");
p.append("Q");
p.removeFirst();
p.removeLast();
p.removeFirst();
p.append("Q");
```



$$p = [Z,Y,X,A,B,C]:6$$

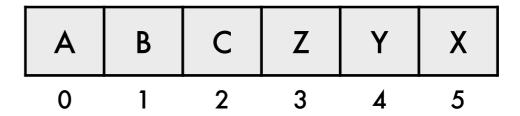
```
Pipe<String> p =
  new CircArrayPipe<>(6);
p.removeFirst();
p.append(null);
p.append("A");
p.append("B");
p.append("C");
p.prepend("X");
p.prepend("Y");
p.prepend("Z");
p.append("Q");
p.removeFirst();
p.removeLast();
p.removeFirst();
p.append("Q");
```

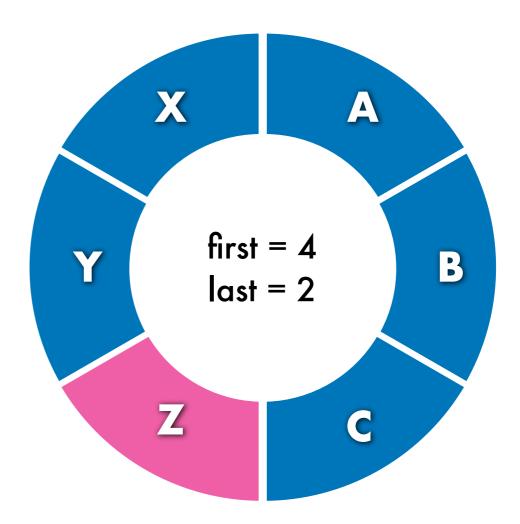




$$p = [Z,Y,X,A,B,C]:6$$

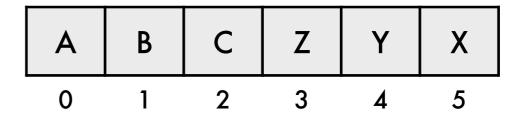
```
Pipe<String> p =
  new CircArrayPipe<>(6);
p.removeFirst();
p.append(null);
p.append("A");
p.append("B");
p.append("C");
p.prepend("X");
p.prepend("Y");
p.prepend("Z");
p.append("Q");
p.removeFirst();
p.removeLast();
p.removeFirst();
p.append("Q");
```

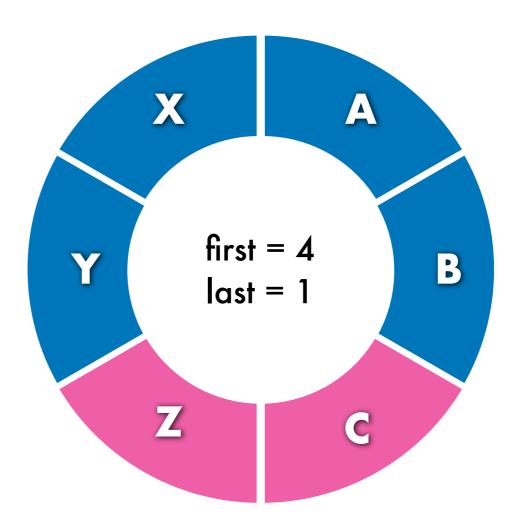




$$p = [Y, X, A, B, C]:6$$

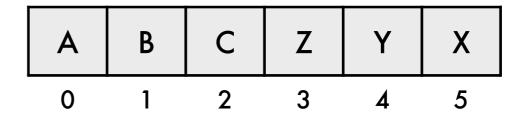
```
Pipe<String> p =
  new CircArrayPipe<>(6);
p.removeFirst();
p.append(null);
p.append("A");
p.append("B");
p.append("C");
p.prepend("X");
p.prepend("Y");
p.prepend("Z");
p.append("Q");
p.removeFirst();
p.removeLast();
p.removeFirst();
p.append("Q");
```

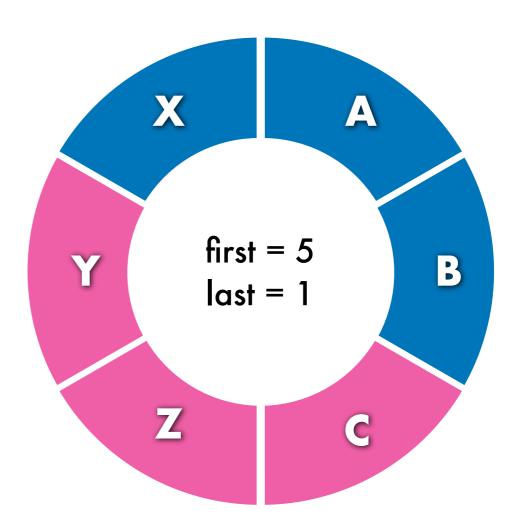




$$p = [Y,X,A,B]:6$$

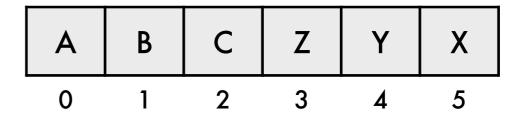
```
Pipe<String> p =
  new CircArrayPipe<>(6);
p.removeFirst();
p.append(null);
p.append("A");
p.append("B");
p.append("C");
p.prepend("X");
p.prepend("Y");
p.prepend("Z");
p.append("Q");
p.removeFirst();
p.removeLast();
p.removeFirst();
p.append("Q");
```

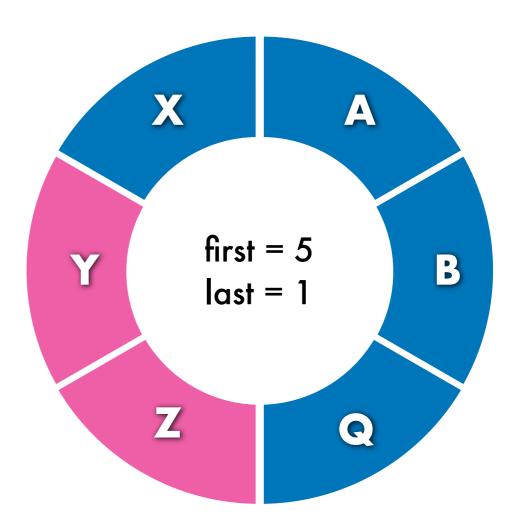




$$p = [X,A,B]:6$$

```
Pipe<String> p =
  new CircArrayPipe<>(6);
p.removeFirst();
p.append(null);
p.append("A");
p.append("B");
p.append("C");
p.prepend("X");
p.prepend("Y");
p.prepend("Z");
p.append("Q");
p.removeFirst();
p.removeLast();
p.removeFirst();
p.append("Q");
```





$$p = [X,A,B,Q]:6$$