

## Arrays : pros & cons

+ access to an element is fast

- only get and set elements

[ \* arrays can't grow

\* arrays can't shrink

\* in C++, arrays don't know how big they are

## List : abstract data type (ADT)

+ access to elements by index

+ size of list known

+ grow or shrink

\* elements are in order

\* index checking

```
template <typename T>
```

```
class List {
```

```
public:
```

```
virtual int getSize() = 0;
```

```
virtual void insertLast(T s) = 0;
```

```
virtual T removeFirst() = 0;
```

```
virtual T get(int idx) = 0;
```

```
}
```

```
⋮
```