

Linear Search

```
int searchList(const int list[], int numElems, int value)
{
    int index = 0;
    int position = -1;
    bool found = false;
    while ((index < numElems) && !found) {
        if (list[index] == value) {
            found = true;
            position = index;
        }
        index++;
    }
    return position;
}
```

Binary Search

```
int binarySearch(const int list[], int numElems, int value)
{
    int first = 0;
    int last = numElems-1;
    int middle;
    int position = -1;
    bool found = false;
    while (!found && (first <= last)) {
        middle = (first+last)/2;
        if (list[middle] == value) {
            found = true;
            position = middle;
        }
        else if (list[middle] > value) {
            last = middle - 1;
        }
        else {
            first = middle + 1;
        }
    }
    return position;
}
```