Describing an algorithm

English:
"Find the largest number in the list"

Pseudocode:

Write down the first number in the list, and call it 'max'
For each number in the list
if it's bigger than 'max'
   replace the value of 'max' by the larger value
When we're all done, 'max' is the largest number we found

Python:

def findMax(list):
    max = list[0]
    for num in list:
        if num > max:
            max = num
    return max

Java:

class MaxFinder {
    public static int findMax(int[] list) {
        int max = list[0];
        for (int num : list) {
            if (num > max) {
                max = num;
            }
        }
        return max;
    }
}

C:

int find_max(int * list, int size) {
    int max = *list;
    int * pos = list;
    while (pos < list + size) {
        if (*pos > max) {
            max = *pos;
        }
        ++pos;
    }
    return max;
}
Pseudocode (for another approach to the same problem):

*If the list has only one number in it, return that number.
Otherwise, return the maximum of a) the first number or b) the largest number in the rest of the list.*

Python:

```python
def find_max(list):
    if len(list) == 1:
        return list[0]
    else:
        return max(list[0], find_max(list[1:])),
```

Erlang:

```
f1ndmax([A]) ->
    A,
    findmax([A | B]) ->
        max(A, findmax(B)).
```

Clojure:

```
(defn findmax [list]
    (if (= (count list) 1)
        (first list)
        (max (first list) (findmax (rest list))))
```