List of Figures

1. Some text goes here . . .

Algorithm 1 Merge Sort

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1: function MERGE(A, p, q, r) ▷ Where A - array, p - left, q - middle, r - right
2:     n_1 = q − p + 1
3:     n_2 = r − q
4:     Let L[1 . . . n_1 + 1] and R[1 . . . n_2 + 1] be new arrays
5:     for i = 1 to n_1 do
6:         L[i] = A[p + i − 1]
7:     end for
8:     for j = 1 to n_2 do
9:         R[i] = A[q + j]
10:    end for
11:    L[n_1 + 1] = ∞
12:    R[n_2 + 1] = ∞
13:    i = 1
14:    j = 1
15:    for k = p to r do
16:        if L[i] < R[j] then
17:            A[k] = L[i]
18:            i = i + 1
19:        else if L[i] > R[j] then
20:            A[k] = R[j]
21:            j = j + 1
22:        else
23:            A[k] = −∞   ▷ We mark the duplicates with the largest negative integer
24:            j = j + 1
25:        end if
26:    end for
27: end function
```