

```
1  # qsort.ex
2  def qsort([]) do [] end
3  def qsort([p | L]) do
4      {list1, list2} = qsplrit(p, 1, [], [])
5      small = qsort(list1)
6      large = qsort(list2)
7      append(small, [p | large])
8  end
9
10 def qsplrit(_, [], small, large) do {small, large} end
11 def qsplrit(p, [h | t], small, large) do
12     if h < p do
13         qsplrit(p, t, [h | small], large)
14     else
15         qsplrit(p, t, small, [h | large])
16     end
17 end
18
19 def append(list1, list2) do
20     case list1 do
21         [] -> list2
22         [h | t] -> [h | append(t, list2)]
23     end
24 end
25
```