

```

1  | # msort.ex
2  def msort(l) do
3      case l do
4          [] -> []
5          [1] -> [1]
6          l ->
7              {x, y} = msplit(l, [], [])
8              merge(msort(x), msort(y))
9      end
10 end
11
12 def merge([], s) do s end
13 def merge(l, []) do l end
14 def merge([x1 | l1], [x2 | _] = l2) when x1 < x2 do
15     [x1 | merge(l1, l2)]
16 end
17 def merge(l1, [x2 | l2]) do [x2 | merge(l1, l2)] end
18
19 def msplit([], l1, l2) do {l1, l2} end
20 def msplit([x | tail], l1, l2) do msplit(tail, [x | l2],
    •  l1) end
21

```