

```
28 public T removeMin() {
29     int bottom = --next;
30     T item = heap[ROOT].item;
31     heap[ROOT] = heap[bottom];
32     if (bottom == ROOT) {
33         return item;
34     }
35     int child = 0;
36     int parent = ROOT;
37     while (parent < heap.length / 2) {
38         int left = parent * 2; int right = (parent * 2) + 1;
39         if (left >= next) {
40             return item;
41         } else if (right >= next || heap[left].score < heap[right].score) {
42             child = left;
43         } else {
44             child = right;
45         }
46         if (heap[child].score < heap[parent].score) {
47             swap(parent, child);
48             parent = child;
49         } else {
50             return item;
51         }
52     }
53     return item;
54 }
```

FIGURE 15.7 The SequentialHeap class: the removeMin() method.