

```

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.