

```
1 public static void main(String[] args) {
2     points = readFile("cluster.dat");
3     centers = randomDistinctCenters(points);
4     pool = new ForkJoinPool();
5     double convergence = 1.0;
6     while (convergence > EPSILON) {
7         Spliterator<Point> pointSplit = points
8             .stream()
9             .spliterator();
10    RecursiveClusterTask clusterTask = new RecursiveClusterTask(pointSplit);
11    Map<Integer, Set<Point>> clusters = pool.invoke(clusterTask);
12    Spliterator<Map.Entry<Integer, Set<Point>>> centerSplit = clusters
13        .entrySet()
14        .stream()
15        .spliterator();
16    RecursiveCenterTask centerTask = new RecursiveCenterTask(centerSplit);
17    Map<Integer, Point> newCenters = pool.invoke(centerTask);
18    convergence = distance(centers, newCenters);
19    centers = newCenters;
20 }
21 displayOutput(centers);
22 }
```

FIGURE 17.19 Code for Exercise 17.13.