```
1    class Matrix {
2      int dim;
3      double[][] data;
4      int rowDisplace, colDisplace;
5      Matrix(int d) {
6        dim = d;
7        rowDisplace = colDisplace = 0;
8        data = new double[d][d];
9      }
10     Matrix(double[][] matrix, int x, int y, int d) {
11       data = matrix;
12       rowDisplace = x;
13       colDisplace = y;
14       dim = d;
15     }
16     double get(int row, int col) {
17       return data[row + rowDisplace][col + colDisplace];
18     }
19     void set(int row, int col, double value) {
20       data[row + rowDisplace][col + colDisplace] = value;
21     }
22     int getDim() {
23       return dim;
24     }
25     Matrix split(int i, int j) {
26       int newDim = dim / 2;
27       return new Matrix(data,
28                         rowDisplace + (i * newDim),
29                         colDisplace + (j * newDim),
30                         newDim);
31     }
32     ...
33   }
```

FIGURE 16.3 The Matrix class.