

```

1  public class Layer {
2      int width;
3      Balancer[] layer;
4      public Layer(int width) {
5          this.width = width;
6          layer = new Balancer[width];
7          for (int i = 0; i < width / 2; i++) {
8              layer[i] = layer[width-i-1] = new Balancer();
9          }
10     }
11     public int traverse(int input) {
12         int toggle = layer[input].traverse();
13         int hi, lo;
14         if (input < width / 2) {
15             lo = input;
16             hi = width - input - 1;
17         } else {
18             lo = width - input - 1;
19             hi = input;
20         }
21         if (toggle == 0) {
22             return lo;
23         } else {
24             return hi;
25         }
26     }
27 }

```

FIGURE 12.20 The Layer network.