

LogicalControlDemo.java

```

1 package class3;
2
3 public class LogicalControlDemo {
4     public static void main(String[] args) {
5         // Boolean logic
6         System.out.println(18 > 20);
7         System.out.println(18 < 20);
8         System.out.println(18 == 20);
9         System.out.println(18 != 20);
10        System.out.println(18 >= 20);
11        System.out.println(18 <= 20);
12
13        // Selection control structure
14        if (18 > 21) {
15            System.out.println("This never happens.");
16        } // end if
17
18        if (18 > 21) {
19            System.out.println("This never happens.");
20        } else {
21            // explicitly do nothing
22        } // end else
23
24        if (18 > 21) {
25            System.out.println("This never happens.");
26        } else {
27            System.out.println("This is a silly example.");
28        } // end else
29
30        // Complex conditional tests
31        int age = 17;
32        boolean citizen = true;
33        if (age >= 18 && citizen == true) {
34            System.out.println("You can vote!");
35        } else {
36            System.out.println("You can't vote!");
37        } // end else
38
39        // Logical negation
40        if (!(age >= 18) || !(citizen == true)) {
41            System.out.println("You can't vote!");
42        } else {
43            System.out.println("You can vote!");
44        } // end else
45
46        // Conditional range testing
47        double grade = 89.49;
48        if (grade >= 89.5) {
49            System.out.println("You got an A!");
50        } else if (grade >= 79.5) {
51            System.out.println("You got a B!");
52        } else if (grade >= 69.5) {
53            System.out.println("You got a C!");
54        } else if (grade >= 59.5) {
55            System.out.println("You got a D!");
56        } else {
57            System.out.println("You failed, see you next semester.");

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58     } // end else
59
60     // Nested conditional testing
61     int recipe = 1;
62     int temp = 352;
63     if (recipe == 1) {
64         if (temp >= 350) {
65             System.out.println("Ready to bake!");
66         } else {
67             System.out.println("Not ready to bake.");
68         } // end else
69     } // end if
70 } // end main
71 } // end LogicalControlDemo
```