

ComparisonDemo.java

```
1 package class4;
2
3 public class ComparisonDemo {
4     public static void main(String[] args) {
5         // Comparing character type variables
6         char firstLetter = 'A';
7         char secondLetter = 'b';
8         char thirdLetter = 'c';
9         char fourthLetter = 'D';
10        if (firstLetter > secondLetter) {
11            System.out.println("First is greater than second.");
12        } // end if
13        if (secondLetter > thirdLetter) {
14            System.out.println("Second is greater than third.");
15        } // end if
16        if (thirdLetter > fourthLetter) {
17            System.out.println("Third is greater than fourth.");
18        } // end if
19        if (fourthLetter > firstLetter) {
20            System.out.println("Fourth is greater than first.");
21        } // end if
22
23        // Comparing decimal type variables
24        // Rounding
25        double finalGrade = 89.49;
26        if (Math.round(finalGrade) >= 90) {
27            System.out.println("You got an A!");
28        } else {
29            System.out.println("You didn't get an A.");
30        } // end else
31
32        // Tolerance
33        double STANDARD = 1.2;
34        double TOLERANCE = 0.1;
35        double width = 1.14;
36        if (Math.abs(STANDARD - width) < TOLERANCE) {
37            System.out.println("Within standards.");
38        } else {
39            System.out.println("Out of tolerance, try again.");
40        } // end else
41
42        // Comparing string type variables
43        String firstWord = new String("First");
44        String secondWord = new String("First");
45        // wrong way
46        if (firstWord == secondWord) {
47            System.out.println("They're the same!");
48        } else {
49            System.out.println("They're not the same.");
50        } // end else
51
52        // correct way
53        if (firstWord.equals(secondWord)) {
54            System.out.println("They're the same!");
55        } else {
56            System.out.println("They're not the same.");
57        } // end else
```

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58
59     // wrong way, but it works! <-- this is dangerous, don't follow this example!
60     String thirdWord = "First";
61     String fourthWord = "First";
62     if (thirdWord == fourthWord) {
63         System.out.println("They're the same!");
64     } else {
65         System.out.println("They're not the same.");
66     } // end else
67 } // end main
68 } // end class ComparisonDemo
```