

```

1 public class Main {
2
3     /**
4      * Main
5      * @param args
6      */
7     public static void main(String[] args) {
8
9         double valueOne = 3.175d;
10        double valueTwo = 3.175d;
11
12        boolean areEqualByThreeDecimalPlaces = DecimalComparator.areEqualByThreeDecimalPlaces(valueOne, valueTwo);
13        System.out.println("Are the values equal by three decimal places?");
14        System.out.println(areEqualByThreeDecimalPlaces);
15
16    }
17 }
18
19
20 /**
21  * DecimalComparator
22  *
23  * areEqualByThreeDecimalPlaces(double valueOne, double valueTwo)
24  */
25 class DecimalComparator {
26
27     /**
28      * areEqualByThreeDecimalPlaces()
29      * Check if two double numbers are the same up to three decimal places.
30      * @param valueOne double one
31      * @param valueTwo double two
32      * @return valueOne and valueTwo are the same up to three decimal places (true) or not (false)
33      */
34     public static boolean areEqualByThreeDecimalPlaces(double valueOne, double valueTwo) {
35
36         valueOne = valueOne * 1000; // double
37         valueTwo = valueTwo * 1000; // double
38
39         int valueOneInt = (int) (valueOne); // (cast to int)
40         int valueTwoInt = (int) (valueTwo); // (cast to int)
41
42         return valueOneInt == valueTwoInt; // return true if equal
43     }
44 }
45

```