

```

1  /**
2  * Main
3  *
4  * @author created by Urs Albisser, on 2020-01-26
5  * @version 0.1
6  */
7  public class Main {
8
9      public static void main(String[] args) {
10
11          double miles = SpeedConverter.toMilesPerHour(10.5);
12          System.out.println("Miles = " + miles);
13
14          SpeedConverter.printConversion(10.5); // 10.5 km/h = 7 mi/h
15      }
16  }
17
18
19
20 /**
21 * SpeedConverter
22 * toMilesPerHour(double kilometersPerHour)
23 * printConversion(double kilometersPerHour)
24 *
25 * Convert a speed in km/h into mi/h and round the result.
26 * Print the converted result.
27 *
28 * @author created by Urs Albisser, on 2020-01-26
29 * @version 0.1
30 */
31 class SpeedConverter {
32
33     /**
34      * toMilesPerHour()
35      * Convert a speed in km/h into miles and round the result
36      * @param kilometersPerHour value in km/h
37      * @return rounded result in miles
38      */
39     public static long toMilesPerHour(double kilometersPerHour) {
40
41         if(kilometersPerHour < 0) {
42             return -1;
43         }
44
45         // 'milesPerHour' is correct but redundant
46         long milesPerHour = Math.round(kilometersPerHour / 1.609);
47         return milesPerHour;
48
49         // best practice
50         // Math.round: Math is built-in class of java
51         return Math.round(kilometersPerHour / 1.609);
52     }
53
54
55     /**
56      * printConversion()
57      * @param kilometersPerHour Speed in km/h to be converted.
58      */
59     public static void printConversion(double kilometersPerHour) {
60
61         if(kilometersPerHour < 0) {
62             System.out.println("Invalid Value");
63         } else {
64             // convert km/h to mi/h
65             long milesPerHour = toMilesPerHour(kilometersPerHour);
66             System.out.println(kilometersPerHour + " km/h = " +
67                               milesPerHour + " mi/h");
68         }
69     }
70 }
71

```