```java
1 package lab5;
2 /*
3  * Banh, Alex
4  * CECS 277
5  * Professor Phuong Nguyen
6  * 14 October, 2019
7  */
8 import java.util.Random;
12 /**
13  * Allows the user to make a lottery ticket and auto generates
14  * winning numbers to check if the user has won any prizes
15  * @author alexb
16  *
17  */
18 public class Main {
19
20     public static void main(String[] args) {
21         // TODO Auto-generated method stub
22             Set <Integer> yourNumbers = new TreeSet<Integer>();
23             Set <Integer> winningNumbers = new TreeSet<Integer>();
24             Scanner scan = new Scanner(System.in);
25             Random rand = new Random();
26
27             yourNumbers = getTicket();
28             winningNumbers = generateWinningNumbers( );
29
30             System.out.println("Your ticket was: " + yourNumbers);
31             System.out.println("Winning numbers: " + winningNumbers);
32
33             yourNumbers.retainAll(winningNumbers);
34
35             System.out.println("Match numbers: " + yourNumbers);
36
37             switch (yourNumbers.size()) {
38                 case 0: System.out.println("Your prize is $0.00");
39                     break;
40                 case 1: System.out.println("Your prize is $5.00");
41                     break;
42                 case 2: System.out.println("Your prize is $10.00");
43                     break;
44                 case 3: System.out.println("Your prize is $20.00");
45                     break;
46                 case 4: System.out.println("Your prize is $40.00");
47                     break;
48                 case 5: System.out.println("Your prize is $80.00");
49                     break;
50                 case 6: System.out.println("Your prize is $160.00");
51                     break;
52             }
53
54         }
55     /**
56      * Makes a ticket from what you input
57      * @return Returns your new ticket
58      */
59     private static Set<Integer> getTicket() {
60         Set <Integer> yourNumbers = new TreeSet<Integer>();
```

```java
61          Scanner scan = new Scanner(System.in);
62          System.out.println("Type 6 lotto numbers: ");
63          for (int i = 0; i < 6; i++) {
64              int a = scan.nextInt();
65              yourNumbers.add(a);
66          }
67          return yourNumbers;
68      }
69      /**
70       * Auto generates winning numbers for the ticket
71       * @return A set containing the winning numbers
72       */
73      private static Set<Integer> generateWinningNumbers() {
74          Set <Integer> winningNumbers = new TreeSet<Integer>();
75          int setSize = 0;
76          Random rand = new Random();
77          for(int i = 0; i < 6; i++) {
78              setSize = winningNumbers.size();
79              winningNumbers.add(rand.nextInt(10) + 1);
80              if (setSize == winningNumbers.size())
81                  i--;
82          }
83          return winningNumbers;
84      }
85
86
87 }
88
```