

Program 3 – AS/AK/ITEC 1620 3.0, Fall 2002

Write a program that simulates a game of dice. In this game, players take alternate turns rolling two dice. On each turn, they record the sum of the two dice and add this to their total. If a player rolls a doublet (both dice have the same value), then the player gets to roll again. However, if the doublet is “snake eyes” (both dice have a value of 1) or “box cars” (both dice have a value of 6), then the player loses their next turn instead. The first player to reach a total of 75 will win.

For games to 20, the output should be as follow (note: no user input is required):

Example 1:

```
Player 1 rolls a 3 and a 3
Player 1 now has 6
Player 1 gets to roll again
Player 1 rolls a 5 and a 1
Player 1 now has 12
Player 2 rolls a 5 and a 1
Player 2 now has 6
Player 1 rolls a 5 and a 6
Player 1 now has 23
Player 1 wins with a total of 23
```

Example 2:

```
Player 1 rolls a 4 and a 6
Player 1 now has 10
Player 2 rolls a 4 and a 1
Player 2 now has 5
Player 1 rolls a 2 and a 5
Player 1 now has 17
Player 2 rolls a 6 and a 3
Player 2 now has 14
Player 1 rolls a 1 and a 1
Player 1 now has 19
Player 1 loses a turn
Player 2 rolls a 1 and a 2
Player 2 now has 17
Player 2 rolls a 3 and a 5
Player 2 now has 25
Player 2 wins with a total of 25
```

Note 1: No rolls should occur after a player reaches the winning score (even if they rolled a doublet).

Note 2: Do not worry about the exact formatting of program output.

You must use the following template:

```
// family name      :
// given names     :
// student no.     :
// aml account id  :
// course          :
// section         :

import york.*;

/*
  This class ...
*/

public class DiceRace
{
    public static void main (String[] args)
    {
        // your code goes here
    }
}
```

Hint 1: the following command can be used to simulate the roll of a single die.

```
int dieValue = (int) Math.ceil(6.0 * Math.random());
```

Hint 2: the following command can be used to insert an integer variable into an output String.

```
York.println("some text " + anInt + " more text");
```

**The due date for this program is posted on your course/section homepage.
Please follow the posted instructions for on-line submission of your source code.**