

```
1  /**
2   * represents a single die
3   */
4
5  import java.util.Random;
6
7  public class Die {
8
9      public int currSide; //should this be private
        or public
10     private int numSides;
11     public final int DEFAULT_SIDES = 6;
12     public final int DEFAULT_START = 1;
13
14
15     /**
16      * constructor, initializes the die
17      */
18     public Die(int sides) { //do not have to define
        data type in constructor
19         numSides = sides;
20         currSide = DEFAULT_START;
21     }
22
23     /**
24      * Constructor, initializes the die with
        default values
25     */
26     public Die() {
27         numSides = DEFAULT_SIDES;
28         currSide = DEFAULT_START;
29     }
30
31     /**
32      * roll the dice, select random number 1-n.
33      * set current side equal to roll value
34      */
35     public void roll() { //void means does not
        return anything
36         Random rollNum; //declaring that rollNum
        will be of the random class when written
```

```
37         rollNum = new Random(); //the roll is a  
        random int  
38         currSide = rollNum.nextInt(numSides) +1; //  
        variable.method(parameter) // returns a random  
        number in rollNum range  
39     }  
40  
41     /**  
42      * @return the number rolled on the die  
43      */  
44     public int getValue() {  
45         return currSide;  
46     }  
47 }  
48  
49
```

```
1
2 import java.util.Scanner;
3 public class Client {
4
5
6     public static void main(String[] args) {
7
8         final int TWELVE_SIDES = 12; //how to
define this constant in die without error
9
10        Die die1;
11        die1 = new Die();
12
13        Die die2;
14        die2 = new Die(TWELVE_SIDES);
15
16
17        while ((die1.getValue() != die2.getValue() * 2 && die2.getValue() != die1.getValue() * 2
18        )) {
19            System.out.print("press return to
20            continue");
21            Scanner getUserInput = new Scanner(
22            System.in); //gets user input
23            getUserInput.nextLine(); //returns a
string, tells you what UI is
24            //need code here that restarts the loop
after enter is pressed
25            die1.roll();
26            die2.roll();
27            System.out.println("you rolled:" + die1
28            .getValue() + " and " + die2.getValue());
29        }
30        System.out.println("game over, double value
31        !");
32        //die default to 6 and 12, so make it so that they
do not get checked until rolled
33
34    }
35 }
```

32

33