

Die.java

```
2 * @author Gruppe 51\_E13
6 package game;
7 import java.util.Random;
8
9 public class Die {
10     private int faceValue;
11     private final int NUM_SIDES;
12     private Random rand;
13     private final static int DEFAULT_NUM_SIDES = 6;
14
15     //Constructor - Creates Die with numSides sides. - Future proofing
    (throws Exception at illegal numSides)
16     /**
17      * @param numSides
18      * @throws Exception
19      */
20     public Die(int numSides) throws Exception{
21         // Constructor TODO Subclass Exception
22         if (numSides < 1) throw new Exception("Wrong number of sides");
23         this.NUM_SIDES = numSides;
24         this.rand = new Random();
25         roll();
26     }
27     //Constructor - creates Die with DEFAULT_NUM_SIDES.
28     /**
29      * @throws Exception
30      */
31     public Die() throws Exception{
32         this(DEFAULT_NUM_SIDES);
33     }
34     /**
35      * Rolls die<br>
36      * @return the faceValue
37      */
38     public int roll() {
39         // New random faceValue
40         this.faceValue = rand.nextInt(NUM_SIDES)+1;
41         return faceValue;
42     }
43     /**
44      * @return the faceValue
45      */
46     public int getFaceValue() {
47         return faceValue;
48     }
49     /**
50      * @param faceValue the faceValue to set
51      */
52     public void setFaceValue(int faceValue) {
53         this.faceValue = faceValue;
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54     }  
55     @Override  
56     public String toString(){ return ("faceValue: " + faceValue);  
57     }  
58  
59 }  
60
```