

```
1 /**
2  *
3  */
4 package shapesTestsrc;
5
6 import static org.junit.jupiter.api.Assertions.*;
7
8
9
10
11
12
13 /**
14  * @author patrickFrendo
15  *
16  */
17 class shapeTest {
18
19     AllShapes shapes = new AllShapes();
20     Rectangle r1;
21     Rectangle r2;
22     Rectangle r3;
23     RtAngleTriangle t1;
24     Circle c1;
25
26     /**
27      * @throws java.lang.Exception
28      */
29     @BeforeEach
30     void setUp() throws Exception {
31         r1 = new Rectangle ("red", 2,3);
32         shapes.add(r1);
33
34         r2 = new Rectangle ("red", 2,3);
35         shapes.add (r2);
36
37         r3 = new Rectangle ("green", 2,3);
38         shapes.add (r3);
39
40         t1 = new RtAngleTriangle ("red", 2,4);
41         shapes.add(t1);
42
43         c1 = new Circle ("green", 4);
44         shapes.add(c1);
45     }
46
47     /**
48      * @throws java.lang.Exception
49      */
50     @AfterEach
51     void tearDown() throws Exception {
52         r1 = null;
53         r2 = null;
54         r3 = null;
55         t1 = null;
56         c1 = null;
57     }
58
59     @Test
60     void testSameShapeCheck() {
61
62         assertEquals(r1.getColour(), r2.getColour());
63         assertEquals(r1.getLength(), r2.getLength());
64         assertEquals(r1.getWidth(), r2.getWidth());
65     }
66
67     @Test
```

```
68     void testSameShapeDifferentColor() {
69         assertEquals(r2.getColour(), r3.getColour());
70         assertEquals(r2.getLength(), r3.getLength());
71         assertEquals(r2.getWidth(), r3.getWidth());
72     }
73
74     @Test
75     void testSetBaseValue() {
76         // t1.setBase(2.22); <-- only accepts int??
77         assertEquals(t1.getBase(), 4);
78     }
79
80     @Test
81     void testShapeArrayList() {
82         assertEquals(c1.getColour(), shapes.getShape(4).getColour());
83         assertEquals(c1.getArea(), shapes.getShape(4).getArea());
84     }
85
86
87
```