Clipper.java | ClipperTests.java

```
1  import static org.junit.Assert.*;
3
4  public class ClipperTests {
5
6          @Test
7          public void clip1() {
8                  int x = Clipper.clip(1, 9, 0);
9                  assertEquals(1, x);
10         }
11
12         @Test
13         public void clip2() {
14                 int x = Clipper.clip(1, 9, 10);
15                 assertEquals(9, x);
16         }
17
18         @Test
19         public void clip3() {
20                 int x = Clipper.clip(1, 9, 5);
21                 assertEquals(5, x);
22         }
23
24         @Test
25         public void clip4() {
26                 int x = Clipper.clip(9, 1, 5);
27                 assertEquals(1, x);
28         }
29 }
30
```

Clipper.java | ClipperTests.java

```
1  public class Clipper {
2
3      public static int clip(int lower, int upper, int x) {
4          if (x < lower) {
5              x = lower;
6          }
7          if (x > upper) {
8              x = upper;
9          }
10         return x;
11     }
12
13 }
```

Problems | Javadoc | Declaration | Console | Coverage

ClipperTests (18-Mar-2017 14:55:35)

Element	Coverage	Covered Instructio...	Missed Instructions
UnitTesting	94.8 %	55	3
src	94.8 %	55	3
(default package)	94.8 %	55	3
Clipper.java	80.0 %	12	3
Clipper	80.0 %	12	3
clip(int, int, int)	100.0 %	12	0
ClipperTests.java	100.0 %	43	0
ClipperTests	100.0 %	43	0
clip1()	100.0 %	10	0
clip2()	100.0 %	10	0
clip3()	100.0 %	10	0
clip4()	100.0 %	10	0

Clipper.java | ClipperTests.java

```
1  import static org.junit.Assert.*;
3
4  public class ClipperTests {
5
6          @Test
7          public void clip1() {
8                  int x = Clipper.clip(1, 9, 0);
9                  assertEquals(1, x);
10         }
11
12 }
13
```

Clipper.java | ClipperTests.java

```
1  public class Clipper {
2
3      public static int clip(int lower, int upper, int x) {
4          if (x < lower) {
5              x = lower;
6          }
7          if (x > upper) {
8              x = upper;
9          }
10         return x;
11     }
12
13 }
```

Problems | Javadoc | Declaration | Console | Coverage

ClipperTests (18-Mar-2017 14:52:33)

Element	Coverage	Covered Instructio...	Missed Instructions
UnitTesting	82.1 %	23	5
src	82.1 %	23	5
(default package)	82.1 %	23	5
Clipper.java	66.7 %	10	5
Clipper	66.7 %	10	5
clip(int, int, int)	83.3 %	10	2
ClipperTests.java	100.0 %	13	0
ClipperTests	100.0 %	13	0
clip1()	100.0 %	10	0

```java
public class MorgageTests {

    @Test
    public void Test1() {
            assertEquals((int) (7* 1000), Mortgage.calculateMortgage(25, 1000, Mortgage.Gender.FEMALE));
    }

    @Test
    public void Test2() {
            assertEquals((int) (5* 1000), Mortgage.calculateMortgage(39, 1000, Mortgage.Gender.FEMALE));
    }

    @Test
    public void Test3() {
            assertEquals((int) (3* 1000), Mortgage.calculateMortgage(48, 1000, Mortgage.Gender.FEMALE));
    }

    @Test
    public void Test4() {
            assertEquals(0, Mortgage.calculateMortgage(59, 1000, Mortgage.Gender.FEMALE));
    }
    @Test
    public void Test5() {
            assertEquals(0, Mortgage.calculateMortgage(17, 1000, Mortgage.Gender.FEMALE));
    }
    @Test
    public void Test6() {
            assertEquals((int) (7.5* 1000), Mortgage.calculateMortgage(25, 1000, Mortgage.Gender.MALE));
    }

    @Test
    public void Test7() {
            assertEquals((int) (5.5* 1000), Mortgage.calculateMortgage(39, 1000, Mortgage.Gender.MALE));
    }

    @Test
    public void Test8() {
            assertEquals((int) (3.5* 1000), Mortgage.calculateMortgage(48, 1000, Mortgage.Gender.MALE));
    }

    @Test
    public void Test9() {
            assertEquals(0, Mortgage.calculateMortgage(59, 1000, Mortgage.Gender.MALE));
    }
    @Test
    public void Test10() {
            assertEquals(0, Mortgage.calculateMortgage(17, 1000, Mortgage.Gender.MALE));
    }
    @Test
    public void Test11() {
            assertEquals(0, Mortgage.calculateMortgage(17, 1000, null));
    }
```

```java
public class Mortgage {

    public enum Gender {
        MALE, FEMALE;
    }

    public static int calculateMortgage(int age, int salary, Gender gender) {
        double factor = 0;
        if (gender == Mortgage.Gender.FEMALE) {
            if (18 <= age & age <= 35) {
                factor = 7;
            } else if (36 <= age & age < 45) {
                factor = 5;
            } else if (45 < age & age <= 55) {
                factor = 3;
            }
        } else if (gender == Mortgage.Gender.MALE) {
            if (18 <= age & age <= 35) {
                factor = 7.5;
            } else if (35 < age & age <= 45) {
                factor = 5.5;
            } else if (45 < age & age <= 55) {
                factor = 3.5;
            }
        }
        return (int)(salary * factor);
    }
}
```

Element	Coverage	Covered Instructio...	Missed Instructions	Total Instructions
ClipperTests.java	0.0 %	0	43	43
Mortgage.java	85.7 %	144	24	168
Mortgage	97.5 %	115	3	118
Gender	58.0 %	29	21	50
calculateMortgage(int, int, Ge	100.0 %	115	0	115
Clipper.java	0.0 %	0	15	15
MorgageTests.java	100.0 %	91	0	91
MorgageTests	100.0 %	91	0	91
Test1()	100.0 %	8	0	8
Test10()	100.0 %	8	0	8
Test11()	100.0 %	8	0	8
Test2()	100.0 %	8	0	8
Test3()	100.0 %	8	0	8
Test4()	100.0 %	8	0	8
Test5()	100.0 %	8	0	8
Test6()	100.0 %	8	0	8
Test7()	100.0 %	8	0	8
Test8()	100.0 %	8	0	8
Test9()	100.0 %	8	0	8