

## CSE 5321 Homework 4.3 Summer 2019

1)

Test Case Number	Inputs		Exp Out				Basis Path tested
	gearUp	altfeet	gndCollCaut	gndCollWarn	gndCollAlert	emerGD	
1	TRUE	200.1	TRUE	FALSE	FALSE	FALSE	9-10-11-12-20
2	FALSE	200.1	FALSE	FALSE	FALSE	FALSE	9-20
3	TRUE	400.1	FALSE	FALSE	FALSE	FALSE	9-10-20
4	TRUE	100.1	FALSE	TRUE	FALSE	FALSE	9-10-11-12-15-20
5	TRUE	50.0	FALSE	FALSE	TRUE	TRUE	9-10-11-14-18-19-20
6	TRUE	50.1	FALSE	FALSE	TRUE	FALSE	9-10-11-14-18-20
7	TRUE	50,000.0	FALSE	FALSE	FALSE	FALSE	-
8	TRUE	400.0	TRUE	FALSE	FALSE	FALSE	-
9	TRUE	200.0	FALSE	TRUE	FALSE	FALSE	-
10	TRUE	100.0	FALSE	FALSE	TRUE	FALSE	-
11	TRUE	0.0	FALSE	FALSE	TRUE	TRUE	-

2)

The screenshot shows the Eclipse IDE with the following components:

- Package Explorer:** Shows the project structure with 'Problem3ClassTest' and 'Problem3Class'.
- JUnit Runner:** Displays the test results for 'Problem3ClassTest'. It shows 11 tests passed, with a total time of 0.145 seconds. The tests are:
  - [0] 1,TRUE,200.1,TRUE,FALSE,FALSE,FALSE,9-10-11-12-20 (test) (0.000 s)
  - [1] 2,FALSE,200.1,FALSE,FALSE,FALSE,FALSE,9-20 (test) (0.000 s)
  - [2] 3,TRUE,400.1,FALSE,FALSE,FALSE,FALSE,9-10-20 (test) (0.000 s)
  - [3] 4,TRUE,100.1,FALSE,TRUE,FALSE,FALSE,9-10-11-12-15-20 (test) (0.010 s)
  - [4] 5,TRUE,50.0,FALSE,FALSE,TRUE,FALSE,9-10-11-14-18-19-20 (test) (0.013 s)
  - [5] 6,TRUE,50.1,FALSE,FALSE,TRUE,FALSE,9-10-11-14-18-20 (test) (0.003 s)
  - [6] 7,TRUE,50000.0,FALSE,FALSE,FALSE,FALSE,- (test) (0.008 s)
  - [7] 8,TRUE,400.0,TRUE,FALSE,FALSE,FALSE,- (test) (0.008 s)
  - [8] 9,TRUE,200.0,FALSE,TRUE,FALSE,FALSE,- (test) (0.002 s)
  - [9] 10,TRUE,100.0,FALSE,FALSE,TRUE,FALSE,- (test) (0.007 s)
  - [10] 11,TRUE,0.0,FALSE,FALSE,TRUE,TRUE,- (test) (0.002 s)
- Problem3ClassTest.java:** The source code for the test class, showing the test methods and the expected outcomes for each test case.
 

```

2 public class Problem3ClassTest {
3     boolean gndCollCaut, gndCollWarn, gndCollAlert, emerGD;
4
5     public void gndCollWarning (boolean gearUp, double altfeet) {
6         gndCollCaut=gndCollWarn=gndCollAlert=emerGD=false;
7         if (gearUp)
8             if (altfeet<=400)
9                 if (altfeet>200)
10                     gndCollCaut=true;
11         else
12             if (altfeet>100)
13                 gndCollWarn=true;
14         else {
15             gndCollAlert=true;
16             if (altfeet<=50)
17                 emerGD=true;
18         }
19     }
20
21     public boolean isGndCollCaut() {
22         return gndCollCaut;
23     }
24
25     public void setGndCollCaut(boolean gndCollCaut) {
26         this.gndCollCaut = gndCollCaut;
27     }
28
29     public boolean isGndCollWarn() {
30         return gndCollWarn;
31     }
32
33     public void setGndCollWarn(boolean gndCollWarn) {
34         this.gndCollWarn = gndCollWarn;
35     }
36
37     public boolean isGndCollAlert() {
38         return gndCollAlert;
39     }
40
41     public void setGndCollAlert(boolean gndCollAlert) {
42         this.gndCollAlert = gndCollAlert;
43     }
44
45     public boolean isEmerGD() {
46         return emerGD;
47     }
48 }

```
- Coverage:** Shows the coverage for the test run, indicating 100.0% coverage for the 'HomeWork4.3' element.