

```

1 // Example 7.1 foi/examples/Rumpelstiltskindemo.java
2 //
3 //
4 // Copyright 2003 Bill Campbell and Ethan Bolker
5
6 // Practice with simple exceptions - some from the API, one declared here
7
8 public class Rumpelstiltskindemo
9 {
10     public static void main( String[] args )
11     {
12         Wizard rumpelstiltskin = new Wizard("Rumpelstiltskin");
13         Wizard aNullWizard = null;
14
15         // see if the first command line argument ( args[0] )
16         // is the right name
17         try {
18             System.out.println("Is your name " + args[0] + '??');
19             rumpelstiltskin.guessName(args[0]);
20             System.out.println("Yes! How did you guess?");
21             System.exit(0);
22         }
23         // come here right away if there is no args[0]
24         catch ( IndexOutOfBoundsException e ) {
25             System.out.println( "usage: java Rumpelstiltskindemo guess" );
26             System.exit(0); // leave the program gracefully
27         }
28         // come here from guessName if exception thrown
29         catch ( BadGuessException e ) {
30             System.err.println("sorry - " + args[0] + " is not my name");
31         }
32
33         System.out.println(
34             "\nIntentionally generate a NullPointerException, \n" +
35             "see what the Exception's toString method returns");
36         try {
37             aNullWizard.guessName("who am I?");
38         }
39         catch ( Exception e ) {
40             System.out.println(e);
41         }
42
43         System.out.println(
44             "\nExperiment with the printStackTrace() method:");
45         try {
46             rumpelstiltskin.makeMischief();
47         }
48         catch ( Exception e ) {
49             e.printStackTrace();
50         }
51
52         // perhaps throw an uncaught IndexOutOfBoundsException
53         System.out.println(
54             "\nhook for a second command line argument, \n" +
55             "see what happens if it's not there:");
56         System.out.println(args[1]);

```

```

57     }
58
59     // two inner classes, used only in this file
60     private static class Wizard
61     {
62         private String name;
63
64         public Wizard( String name )
65         {
66             this.name = name;
67         }
68
69         public void guessName( String name )
70         throws BadGuessException
71         {
72             if ( !name.equals(this.name) )
73                 throw new BadGuessException( );
74         }
75
76         public void makeMischief()
77         throws BadGuessException
78         {
79             this.guessName("??");
80         }
81     }
82
83     private static class BadGuessException extends Exception
84     {
85         // empty body
86     }
87

```