```
2 // Chapter 7: Programming Challenge 1
3 import java.util.Scanner;
                                                                                public double getLeast()
5 public class Rainfall
                                                                                    double leastMonth = monthlyRain[0];
6 {
                                                                                    for (int k = 0; k < monthlyRain.length; k++)
       private double[] monthlyRain = new double[12];
                                                                                   if (monthlyRain[k] <= leastMonth)</pre>
       public Rainfall()
                                                                                           leastMonth = monthlyRain[k];
10
          this.monthlyRain = new double[12];
                                                                                   return leastMonth;
       public void setMonthly(double[] monthlyRain)
14
           this.monthlyRain = monthlyRain;
                                                                              public static void main(String[] args)
                                                                                   Scanner keyboard = new Scanner(System.in);
      public double getTotal()
                                                                                   double monthlyRain[] = new double [12];
20
                                                                                   Rainfall rainfall = new Rainfall();
21
          double total = 0:
          for ( int k = 0; k < monthlyRain.length; k++)</pre>
22
                                                                                    for (int k = 0; k < monthlyRain.length; k++)</pre>
           if (monthlyRain[k] >= 0)
24
                                                                                    System.out.println("Enter the amount of rainfall of month " + (k+1) + ": ");
               total += monthlyRain[k];
                                                                                     double value = keyboard.nextDouble();
                                                                                     monthlyRain[k] = value;
28
                                                                                     if (value < 0)
          return total;
                                                                                        System.out.println("The program is ending due to an invalid input.");
                                                                                        System.out.println("Please use non-negative numbers for input values.");
       public double getAvg()
          return getTotal() / monthlyRain.length;
                                                                                    rainfall.setMonthly(monthlyRain);
                                                                                   System.out.println("The total amont of rainfall this year is " + rainfall.getTotal());
       public double getMost()
                                                                                   System.out.println("The average amount of rainfall this year is " + rainfall.getAvg());
                                                                                   System.out.println("The month with the most amount of rainfall is " + rainfall.getMost());
                                                                                   System.out.println("The month with the least amount of rainfall is " + rainfall.getLeast());
          double mostRain = 0;
           for (int k = 0; k < monthlyRain.length; k++)
40
           if (monthlyRain[k] >= mostRain)
                                                                        89 }
43
44
               mostRain = monthlyRain[k];
45
46
          return mostRain;
```

1 // Michael Cohen

```
Enter the amount of rainfall of month 1:
Enter the amount of rainfall of month 2:
Enter the amount of rainfall of month 3:
Enter the amount of rainfall of month 4:
Enter the amount of rainfall of month 5:
Enter the amount of rainfall of month 6:
Enter the amount of rainfall of month 7:
Enter the amount of rainfall of month 8:
Enter the amount of rainfall of month 9:
Enter the amount of rainfall of month 10:
Enter the amount of rainfall of month 11:
Enter the amount of rainfall of month 12:
The total amont of rainfall this year is 78.0
The average amount of rainfall this year is 6.5
The month with the most amount of rainfall is 12.0
The month with the least amount of rainfall is 1.0
 ----jGRASP: operation complete.
   -- jGRASP exec: java Rainfall
Enter the amount of rainfall of month 1:
Enter the amount of rainfall of month 2:
The program is ending due to an invalid input.
Please use non-negative numbers for input values.
   --jGRASP: operation complete.
```

--jGRASP exec: java Rainfall

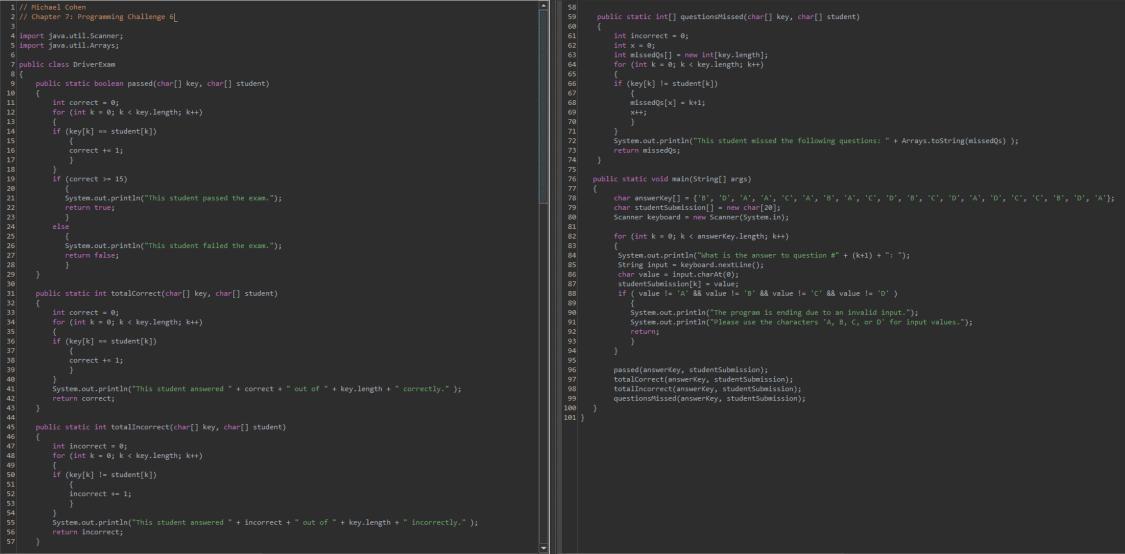
```
2 // Chapter 7: Programming Challenge 5
4 public class LargerThanN
       public static void greaterThan(int[] array, int n)
           for (int k = 0; k < array.length; k++)
10
           if (array[k] > n)
11
               System.out.println("The following numbers from the array are greater than " + n + ":");
12
13
               System.out.println( array[k] );
14
15
16
17
18
      public static void main(String[] args)
19
           int testValues[] = {0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11};
20
21
           int number = 5;
22
           greaterThan(testValues, 5);
23
24 }
     Circle.java
                              🕰 Employee.java
                                                      🥵 PatientCharges.java
                                                                                    Patient.java
Compile Messages
                  jGRASP Messages
                                     Run I/O
                                              Interactions
                 ----jGRASP exec: java LargerThanN
               The following numbers from the array are greater than 5:
 Clear
 Help
               The following numbers from the array are greater than 5:
               The following numbers from the array are greater than 5:
               The following numbers from the array are greater than 5:
               The following numbers from the array are greater than 5:
```

The following numbers from the array are greater than 5:

-jGRASP: operation complete.

11

*



```
What is the answer to question #1:
   What is the answer to question #2:
•
   What is the answer to question #3:
•
   What is the answer to question #4:
•
   What is the answer to question #5:
   What is the answer to question #6:
   What is the answer to question #7:
•
   What is the answer to question #8:
•
   What is the answer to question #9:
   What is the answer to question #10:
   What is the answer to question #11:
•
   What is the answer to question #12:
•
   What is the answer to question #13:
   What is the answer to question #14:
•
   What is the answer to question #15:
*
   What is the answer to question #16:
   What is the answer to question #17:
•
   What is the answer to question #18:
•
   What is the answer to question #19:
   What is the answer to question #20:
•
   This student passed the exam.
   This student answered 17 out of 20 correctly.
   This student answered 3 out of 20 incorrectly.
   What is the answer to question #1:
   The program is ending due to an invalid input.
   Please use the characters 'A, B, C, or D' for input values.
    ----jGRASP: operation complete.
•
```

----jGRASP exec: java DriverExam