Assignment #2

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1. PP 3.1

   Everything is outputted on a screen using the scanner for inputs.

drawSky.java | part1_pp31.java

```
1  package Assignment_2;
2
3  import java.util.Random;
5
6  public class part1_pp31 {
7
8      public static void main(String[] args) {
9          // TODO Auto-generated method stub
10
11         String fName;//variable fname to hold
12         String lName;//variable lname to hold
13         String userName; //variable userName to hold
14         int random; //variable to set high number to 99
15         int randomno; //variable to reject number below 10
16
17
18         Scanner scanName = new Scanner(System.in);//Scanner to review data
19         System.out.print("Please enter first name: ");
20         fName = scanName.nextLine();
21         //user adds first name
22         System.out.print("Please enter last name: ");
23         lName = scanName.nextLine();
24         //user adds last name
25
26         System.out.println(fName + " " + lName);
```

Console

```
<terminated> part1_pp31 [Java Application] C:\Program Files\Java\jre1.8.0_101\bin\javaw.exe (Sep 16, 2016, 9:11:48 PM)
Please enter first name: Jenet
Please enter last name: Baribeau
Jenet Baribeau

Username: JBarib4
```

part1_pp31.java | part2_pp36.java | part3_pp37.java | flight.java | flightTest.java

```
1  package Assignment_2;
2
3  import java.util.Random;
5
6  public class part1_pp31 {
7
8      public static void main(String[] args) {
9          // TODO Auto-generated method stub
10
11         String fName;//variable fname to hold
12         String lName;//variable lname to hold
13         String userName; //variable userName to hold
14         int random; //variable to set high number to 99
15         int randomno; //variable to reject number below 10
16
17
18         Scanner scanName = new Scanner(System.in);//Scanner to review data
19         System.out.print("Please enter first name: ");
20         fName = scanName.nextLine();
21         //user adds first name
22         System.out.print("Please enter last name: ");
23         lName = scanName.nextLine();
24         //user adds last name
25
26         System.out.println(fName + " " + lName);
27
28         userName = fName.substring(0,1) + lName.substring(0,5);
29         Random generator = new Random();//call generator from import
30         random = generator.nextInt(99);//generate a number
31         randomno=generator.nextInt(90)+10;//reject anything
32
33         System.out.println("\nUsername: "+userName+random);
34         scanName.close();
35
36
37     }
38
39 }
```

2. PP3.6

I used the code provided from the example in the book.

part2_pp36.java

```
1  package Assignment_2;
2
3  import java.util.Scanner;
5
6
7  public class part2_pp36 {
8
9      public static void main(String[] args) {
10         // TODO Auto-generated method stub
11
12         int radius;//variables to hold for sphere
13         double volume, area; //variables to hold for sphere
14
15         Scanner scanRadius = new Scanner(System.in);//Scanner to review data
16
17         System.out.print("Enter the circle's Radius: ");
18         radius = scanRadius.nextInt();
19
20         volume = 4/3*(Math.PI*Math.pow(radius, 3));
21         area = 4*(Math.PI*Math.pow(radius, 2));
22
23         //Round the output to 4 decimal points
24         DecimalFormat fmt = new DecimalFormat("0.####");
25
26         System.out.println("The sphere's volume is: " + fmt.format(volume));
27         System.out.println("The shpere's surface area is: " + fmt.format(area));
28
```

Console

```
<terminated> part2_pp36 [Java Application] C:\Program Files\Java\jre1.8.0_101\bin\javaw.exe (Sep 16, 2016, 9:13:39 PM)
Enter the circle's Radius: 10
The sphere's volume is: 3141.5927
The shpere's surface area is: 1256.6371
```

3. PP3.7

   Created variables to represent the input received from the user for the various lengths needed. Used the Scanner import recommended by the Java book. Asked the application to scan for input, do the math and then out put the result. I tried to change inputs to doubles with a decimal and it just gave me a "?" as an answer.

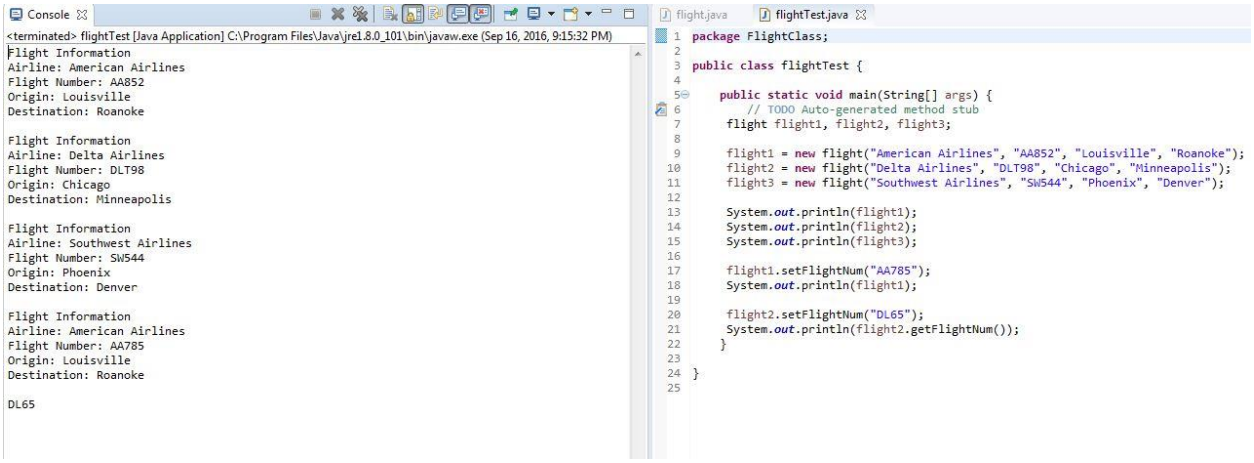
part3_pp37.java

```
1  package Assignment_2;
2
3  import java.util.Scanner;
5
6  public class part3_pp37 {
7
8      public static void main(String[] args) {
9          // TODO Auto-generated method stub
10         double a,b,c;
11         double s;
12         double area;
13
14         Scanner scanTri = new Scanner(System.in);
15
16         System.out.print("Enter length of side a of Triangle: ");
17         a = scanTri.nextDouble();
18         System.out.print("Enter length of side b of Triangle: ");
19         b = scanTri.nextDouble();
20         System.out.print("Enter length of side c of Triangle: ");
21         c = scanTri.nextDouble();
22         s = (a + b + c)*.5;
23         area = Math.sqrt(s*(s-a)*(s-b)*(s-c));
24
25         //Round the output to three decimal places
26         DecimalFormat fmt = new DecimalFormat("0.###");
27
28         System.out.println("The triangle's area: " + fmt.format(area));
29
30
```

Console

```
<terminated> part3_pp37 [Java Application] C:\Program Files\Java\jre1.8.0_101\bin\javaw.exe (Sep 16, 2016, 9:
Enter length of side a of Triangle: 2
Enter length of side b of Triangle: 2
Enter length of side c of Triangle: 2
The triangle's area: 1.732
```

4. First, I created all the variables I would need to hold the data entered. Scan for each item provided by the user using a return after each entry. Created a new flight constructor to pull information required. Reentered new data for an update. Outputted everything in the test per instructions.



Console

<terminated> flightTest [Java Application] C:\Program Files\Java\jre1.8.0_101\bin\javaw.exe (Sep 16, 2016, 9:15:32 PM)

```
Flight Information
Airline: American Airlines
Flight Number: AA852
Origin: Louisville
Destination: Roanoke

Flight Information
Airline: Delta Airlines
Flight Number: DLT98
Origin: Chicago
Destination: Minneapolis

Flight Information
Airline: Southwest Airlines
Flight Number: SW544
Origin: Phoenix
Destination: Denver

Flight Information
Airline: American Airlines
Flight Number: AA785
Origin: Louisville
Destination: Roanoke

DL65
```

flight.java | flightTest.java

```
1  package FlightClass;
2
3  public class flightTest {
4
5      public static void main(String[] args) {
6          // TODO Auto-generated method stub
7       flight flight1, flight2, flight3;
8
9       flight1 = new flight("American Airlines", "AA852", "Louisville", "Roanoke");
10      flight2 = new flight("Delta Airlines", "DLT98", "Chicago", "Minneapolis");
11      flight3 = new flight("Southwest Airlines", "SW544", "Phoenix", "Denver");
12
13      System.out.println(flight1);
14      System.out.println(flight2);
15      System.out.println(flight3);
16
17      flight1.setFlightNum("AA785");
18      System.out.println(flight1);
19
20      flight2.setFlightNum("DL65");
21      System.out.println(flight2.getFlightNum());
22     }
23
24 }
25
```

flight.java | flightTest.java

```
3  public class flight {
4
5      String _airline;
6      String _flightNum;
7      String _origin;
8      String _destination;
9
10     //Constructor
11     public flight (String airline, String flightNum, String origin, String destination)
12     {
13         _airline = airline;
14         _flightNum = flightNum;
15         _origin = origin;
16         _destination = destination;
17
18     }
19
20     //getter
21     public String getAirline(){return _airline;}
22     public String getFlightNum(){return _flightNum;}
23     public String getOrigin(){return _origin;}
24     public String getDestination(){return _destination;}
25
26     //setters to set the value
27
28     public void setAirline(String airline){_airline = airline;}
29     public void setFlightNum(String flightNum){ _flightNum = flightNum;}
30     public void setOrigin (String origin){_origin = origin;}
31     public void setDestination (String dest){_destination = dest;}
32
33     public String toString()
34     {
35         return "Flight Information \nAirline: " + getAirline() + "\nFlight Number: "+ getFlightNum() +
36                 "\nOrigin: " + getOrigin() + "\nDestination: " + getDestination()+ "\n";
37     }
38
39 }
```

5. I couldn't get the star to create.