Assessment Instructions

Instructions: Write a program that calculates your weight on each planet in the solar system.

1. Download the Virtual Lecture Notes to the Unit07 Documents folder.
2. Print a copy of the document for your notebook.
3. Read the Virtual Lecture Notes to learn how to calculate your weight on the other planets in our solar system.
4. Create a new project called Defining New Methods in the Unit07 Assessments folder.
5. Create a class called WeightOnPlanetsV1 in the newly created project.
6. Assign planet names to an array.
7. Read the surface gravity data for each planet from the gravity1.txt file into an array. You will need to copy this file from the project from last lesson into the new one. Open the file to verify that the 9 data values are present, and round the value for Earth to 1.0, which is how surface gravity is generally reported.
8. Calculate your weight in pounds on each planet.
9. Display the information in a neatly formatted table. (See expected output.) Use a Formatting Grid to save time developing the layout for your output.

Note: This is the second part of an assessment that began during the last lesson. If you have not completed the previous assessment, please do so before continuing. You need the gravity1.txt data file generated by the earlier program in this assessment.

Expected Output: When your program runs correctly, the output should resemble the following screen shot

```
My Weight on the Planets
Planet        Gravity     Weight(lbs)
----------------------------------------
Mercury         0.37         36.99
Venus           0.89         88.73
Earth           1.00        100.00
Mars            0.37         37.12
Jupiter         2.48        248.06
Saturn          1.05        104.53
Uranus          0.89         88.77
Neptune         1.11        111.06
Pluto           0.07          6.56
```

Assessment: Your assessment will be graded according to the following rubric.

Grading Rubric	**Pts**
Comments include name, date, and purpose of program.	1
Data assigned to each array with single line.	1
Separate method to print results to the screen.	3
Separate method to write results to a text file.	3
Separate method to read data from text file.	3
Separate method to calculate weight on each planet	3
Arithmetic statements written correctly.	3
Output to display and text file correctly formatted with **`printf()`**	3
Loops used appropriately	2
No compiler or runtime errors.	1
Output is correct and user-friendly.	1
Thoughtful PMR included.	1
	25

Submission: Submit the gravity1.txt and the WeightOnPlanetV1.java files.