

**CS1428**

**Summer 2022**

**Assignment 3 Rubric**

**Student Name:**

**Style: 20 points**

Condition	Max Points	Points Awarded
All lines less than 80 characters.	4	<input type="text"/>
Variables have meaningful names.	4	<input type="text"/>
Every block indented one tab or 4 spaces.	4	<input type="text"/>
Comments included for “complicated” actions.	2	<input type="text"/>
File name is [Authors Last Name]_assignment3.cpp	4	<input type="text"/>
Author, date, and collaborator comments included.	2	<input type="text"/>

**Code Refactor: 30 points**

Condition	Max Points	Points Awarded
Design New Ship implemented as 1 function	6	<input type="text"/>
Test a Ship Design implemented as 1 function	6	<input type="text"/>
Simulate a Flight implemented as 1 function	6	<input type="text"/>
Menu branches each call 1 function	6	<input type="text"/>
Good comments for all function returns and parameters	6	<input type="text"/>

**Test Cases: 50 points**

Input	Test Condition (Not exact output)	Max Points	Points Awarded
D Walter Hohman Sally 500 5200	<u>Contents of Sally.txt</u> Ship Mass: 500.0kg Acceleration: 10.4m/s <sup>2</sup> Impulse: 22.9Ns/kg Max Altitude: 469.0km Designed by: Walter Hohman	3	<input type="text"/>
D Jules Verne Valentina 340 679	<u>Contents of Valentina.txt</u> Ship Mass: 340.0kg Acceleration: 2.0m/s <sup>2</sup> Impulse: 6.8Ns/kg Max Altitude: 145.6km Designed by: Jules Vernes	3	<input type="text"/>
D Isaac Asimov Kalpana 100 560	<u>Contents of Kalpana.txt</u> Ship Mass: 100.0kg Acceleration: 5.6m/s <sup>2</sup> Impulse: 16.9Ns/kg Max Altitude: 347.7km Designed by: Isaac Asimov	3	<input type="text"/>
T Sally	Console prints, "Sally has failed test number 3"	5	<input type="text"/>
t Valentina	Console prints, "Valentina has failed test number 4"	5	<input type="text"/>
T Kalpana	Console prints, "Kalpana has passed all tests."	5	<input type="text"/>
j	Console prints error message.	2	<input type="text"/>
s 15 0	<u>Console Output</u> At 0 seconds: 0.0m/s 0.0m	10	<input type="text"/>
S 7.5 40	<u>Console Output</u> At 0 seconds: 0.0m/s 0.0m ... At 10 seconds: 75.0m/s 375.0m ... At 40 seconds: 300.0m/s 6.0km	10	<input type="text"/>
q	Program prints, "Thank you for using Craft Designer Plus." and exits.	4	<input type="text"/>

**\*values can be +- 0.1**

**All test cases will be entered in order on one run of the program.**

**Total Points:**