**CSE 212 – Programming with Data Structures**

**W03 Prove – Response Document**

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**Question 1: From Part 1, describe what the Mystery Stack 1 code does and how the use of a stack helps in the implementation.**

**The mystery\_1 function returns a reverse of string, using the stack to hold letters than remove them in the opposite order they were put in.**

**Question 2: From Part 1, what are the three outputs from the Mystery Stack 1 code for the following three different inputs?**

* **Racecar - racecaR**
* **Stressed - dessertS**
* **a nut for a jar of tuna – anut fo raj a rof tun a**

**Question 3: From Part 2, describe what the Mystery Stack 2 code does and how the use of a stack helps in the implementation.**

**It’s a calculator. It loops through a string, converting number characters to floats, and whenever it comes across a mathematical operator it performs that operation on the last two numbers in the stack and replaces them with it, then returning the final result to the user.**

**Question 4: From Part 2, answer the following regarding what the Mystery Stack 2 code does:**

* **What will the result be if the input parameter is: 5 3 7 + \***

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* **What will the result be if the input parameter is: 6 2 + 5 3 - /**

## 4

* **What input parameter would result in the display of “Invalid Case 1!”**

## “1 2”

* **What input parameter would result in the display of “Invalid Case 2!”**

## “3 0 /”

* **What input parameter would result in the display of “Invalid Case 3!”**

## “2 a 4 3 / 2 +”

* **What input parameter would result in the display of “Invalid Case 4!”**

## “8 4 / 2 ”