

Task: Scale Balancing Script

LATCH



Create a script that will accept two elements, the first being the two positive integer weights on a balance scale (left and right sides) and the second element being a list of available weights as positive integers.

The goal is to determine if you can balance the scale by using the least amount of weights from the list, but using at most 2 weights. You can only use the available weights from the list once.

For example: if the given input is `["[5, 9]", "[1, 2, 6, 7]"]` then this means there is a balance scale with a weight of 5 on the left side and 9 on the right side. It is possible to balance this scale by adding a 6 to the left side from the list of weights and adding a 2 to the right side. Both scales will now equal 11 and they are perfectly balanced.

Your program should:

- Able to accept the inputs
- Return a comma separated string of the weights that were used from the list in ascending order, so for this example your program should return the string `"2,6"`
- Return proper error messaging (For example, that the scale is not able to be balanced)
- The script should handle all errors (No native Python exceptions)
- The script should be posted to Github
- Include a documentation file/Readme file
 - Which tells the user everything they need to know to use the script
 - What test strategies would you use to test it, if this was an actual consumer product.
- Include a separate test script to validate your program.

Example Test Cases:

Input: "[3, 4]", "[1, 2, 7, 7]"

Output: "1"

Input: "[13, 4]", "[1, 2, 3, 6, 14]"

Output: "3,6"

Input: "[8, 3]", "[8]"

Output: "No possible solution. Please try again."

Please direct any questions you may have to william@latch.com

What we're looking for:

- Your ability to handle exceptions in the main program
- A separate test Script
 - The script should include test cases that fully validate your main program
 - Output Result of each test case in the logfile
- Whether or not the scripts run
- Your progress through commits
- The explanation of your work through documentation