CS218 HW 4 Challenge

due Thursday, May 23, 23:59 PM

Problem A // ID: 260066995

I loop through all points and nest in the other points and check the slope between them, and add that slope to a dictionary. After the double nested loop runs, the dictionary will have a particular value be the largest representing the largest count of treats on the same line.

Runtime: $O(n^2)$ due the nested loop checking the points to other points; Space Complexity: $O(1)$, due to counters.

Problem B // ID:

Runtime: ; Space Complexity:

Problem C // ID: 260080375

I cumulatively add the values together as long the sequence is increasing. Otherwise, if the next value is less than what was previously seen, I maintain the previous cumulative sum onwards.

Runtime: $O(n)$ due to simple for loop checking each toy; Space Complexity: $O(1)$, due to counters.

Problem D // ID:

Runtime: ; Space Complexity: