**CSE 212 – Programming with Data Structures**

**W05 Prove – Response Document**

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| **Date:** | 5/19/23 |
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**Question 1: From Part 1, how did you answer the interview question for the Set Operations problem (should be no more than 30 seconds if spoken aloud)?**

For finding the intersection of two sets you could loop through the first set and compare those values to the second set. If any intersect add them to a new set. Since it is a set, finding the intersecting values can be done using only one for loop, then using the statement if value in set to find intersecting values. For the union of the sets, you can loop through and add the values from set1 to set2. Since sets do not allow duplicate values, any duplicates will only be included once.

**Question 2: From Part 2, how did you answer the interview question for the Find Pairs problem (should be no more than 30 seconds if spoken aloud)?**

To find the pairs I first looped through the list of items and checked to see if the inverse was in the set, if the inverse was not in the set, then I added the item to the set, if an inverse of the item was already in the set, then the item and its inverse was printed. Since the if statement is comparing values to a set it does I did not have to utilize a second loop to preform the comparison.

Remember: You need to submit the following code files in addition to this document:

* 05-prove\_set\_operations.py
* 05-prove\_find\_pairs.py