CS10 With-Computer Final SOLUTIONS

\[
\text{report combine with } \text{function2} \ \text{items of (map function1) over list}
\]

\[
\text{if length of list } = 1
\]

\[
\text{report call function1 with inputs item 1 of list}
\]

\[
\text{call function2 with inputs (call function1 with inputs item 1 of list) (map function1 reduce function2 over all but first of list (recursive))}
\]
#Section 1

```python
def starts_with_same_letter(sequence):
    words = sequence.split()
    letter_dict = {
    for word in words:
        if word[0] in letter_dict:
            if word not in letter_dict[word[0]]:
                letter_dict[word[0]] = letter_dict[word[0]] + [word]
            else:
                letter_dict[word[0]] = [word]
        max_len = max([len(lst) for lst in letter_dict.values()])
        for lst in letter_dict.values():
            if len(lst) == max_len:
                return lst
    #Alternate solution
    def starts_with_same_letter_v2(sequence):
        words = sequence.split()
        letter_dict = {
        for word in words:
            if word[0] in letter_dict:
                if word not in letter_dict[word[0]]:
                    letter_dict[word[0]] = letter_dict[word[0]] + [word]
                else:
                    letter_dict[word[0]] = [word]
        return max(letter_dict.values(), key=lambda l: len(l))
```