1. What are some functions that can be performed on lists?

2. What is the output of the following code? If there are any errors, correct them.

```python
L1 = [[1], [2], [3], [4], [5]]
for i in range(6, 11):
    L1.append([i])
print(L1)
```
3. What is the output of the following code? If there are any errors, correct them.

```python
L1 = [[1], [2], [3], [4], [5]]
for itm in L1:
    for i in range(itm[-1], 7):
        itm.append([i])
print(L1)
```

4. What is the output of the following code? If there are any errors, correct them.

```python
L1 = []
L2 = [1, 2, 3]
L3 = [4, 5, 6]
for i in L3:
    for j in L2:
        L1.append(L2.pop())
print("L1 = ", L1)
print("L2 = ", L2)
print("L3 = ", L3)
```
5. What is the output of the following code? If there are any errors, correct them.

```python
def print_list(a_list):
    for itm in a_list:
        print(itm, end="	")
    print()

def print_lists(a_list):
    for itms in a_list:
        for itm in itms:
            print(itm, end="	")
        print()
    print()

list1 = [1, 2, 3, 4]
print(list1)
print_list(list1)
print_lists(list1)

print()

list2 = [[1, 2, 3], [2, 3, 4]]
print(list2)
print_list(list2)
```
6. Write a function `count_distinct` that takes a list and returns the number of distinct items. For example, on `[10, 20, 10, 30, 20]` it should return `3` because there are three distinct items.

7. Write a function `word_to_lists` that takes a string that returns a list. The returned list will have a sublist for each character in the string. Each sublist will contain the first `i` characters of the string where `i` is the index of the sublist in the returned list.

For example, `word_to_lists('cat')` will return `[[], ['c'], ['c', 'a']]`