CSC148 Summer 2016 Quiz 03 (15 minutes)

First Name …… Last Name …….. Lab room# ……

Read over the following solution for the function **`list_queue`** you worked on during the lab. We have omitted most of the docstring, and have added two **`print(q)`** statements.

```
def list_queue(list_, q):
    """
    :param list_: a Python list, possibly noted
    :type list_ : list
    :param q: an empty queue
    :type q : Queue
    :rtype: None
    """
    for i in list_:
        q.add(i)

    print(q)
    while not q.is_empty():
        el = q.remove()
        if isinstance(el, list):
            for j in el:
                q.add(j)
        else:
            print(el)

        print(q)
```

Remember that the **`Queue`** class in lab has three methods (other than **`__init__`**):

`add(o)`: add object **`o`** at the end of this queue.

`remove()`: remove and return object at beginning of queue.

`is_empty()`: Return whether queue is empty or not.

Assume **`print(q)`** prints a user-friendly string representation of **`Queue q`**.

Assume that **`L = ['a', ['b', ['c', 'd']], ['e', 'g'], 'f']`** and that **`q`** is an empty **`Queue`**. Write the output of the function call **`list_queue(L, q)`**. (We have written the first line of the output for you.)

['a', ['b', ['c', 'd']], ['e', 'g'], 'f']
a
[['b', ['c', 'd']], ['e', 'g'], 'f']
[['e', 'g'], 'f', 'b', ['c', 'd']]
['f', 'b', ['c', 'd'], 'e', 'g']
f
['b', ['c', 'd'], 'e', 'g']
b
[['c', 'd'], 'e', 'g']
['e', 'g', 'c', 'd']
e
['g', 'c', 'd']
g
['c', 'd']
c
['d']
d
[]