1) Lists can be <u>concatenated</u>
   PROGRAM
   a = [21,2,3]
   b = [4,5,6]
   c = a + b
   print (c)

2) We can also _____slice_____ lists

3) PRACTICE slicing in the SHELL -(JUST TYPE WHAT FOLLOWS >>>)
   ```
   >>> t = [9,41,12,3, 74,15]
   >>> t=[1:3]
   [41, 12]
   >>> t[1:4]
   [41, 12, 3]
   >>> t[:4]
   [9, 41, 12, 3]
   >>> t[3:]
   [3, 74, 15]
   >>> t[:]
   [9, 41, 12, 3, 74, 15]
   ```

4) Remember: Just like in strings, the second number is <u>"up to but not including"</u>

5) In SHELL
   ```
   >>> type(t)
   <class 'list'>
   dir(t)
   ```

ALL OF THESE ARE CALLED ____methods_____or___functions_ – These are all things you can do to lists

6) NOTE – MISTSAKE IN PROGRAM IN VIDEO THAT HE FIXES – CAN YOU SPOT IT?
   _____iPod should be 99_____

7) IN SHELL: (JUST TYPE WHAT FOLLOWS >>>)
   ```
   >>> stuff = []
   >>> print(stuff)
   []
   >>> stuff.append('book')
   >>> stuff.append(99)
   >>> print(stuff)
   ```

```
['book', 99]
>>> stuff.append('cookie')
>>> print(stuff)
['book', 99, 'cookie']
```

8) Python allows you <u>to check if an item is in a list - </u>(JUST TYPE WHAT FOLLOWS >>>)

```
>>> some = [1,9,21,10,16]
>>> 9 in some
True
>>> 15 in some
False
>>> 20 not in some
True
```

9) True and False are <u>Logical Operators</u>
   a. Often used in ___<u>If</u>___ and ___<u>while</u>___ statements

10) A list can be ____<u>sorted</u>___

11) PROGRAM

```
freinds = ['Joseph', 'Glenn', 'Sally']
print(freinds)
freinds.sort()
print(freinds)
```

12) PROGRAM

```
nums = [3,41,12,9,74,15]
print(len(nums))
print('max is ', max(nums))
print('min is ',min(nums))
print('Sun is ', sum(nums))
print('Average is ',sum(nums)/len(nums))
```

13) PROGRAM

```
numlist = list()
while True:
    inp = input('Enter a number: ')
    if inp == 'done' : break
    value = float(inp)
    numlist.append(value)
average = (sum(numlist)/len(numlist))
print ('Average:', average)
```