

Kerry Ojakian's CSI 31 Class Class Assignment #6

General Instructions:

- You may work in a group of at most 3 students.
- Classwork must be put in a your dropbox folder; if there are multiple parts, create a single folder for the class assignment. Make sure you give clear names to your files and folders. Make sure that you indicate all the people in your group.
- When you are done, email me to tell me who's folder the class work is in; also, tell me who is in your group.

The Assignment

1. Consider the following code:

```
L = []
D = {}
S = set()
x = eval(input("Give me a number: "))
while x >= 100 :

    L.append(x+10)
    S.add(x)
    if not x in D:
        D[x] = 1
    else:
        D[x] = -1

    x = eval(input("Give me a number: "))
```

Without using a computer, answer the following questions about the code:

- (a) Suppose the user enters the following numbers in order:

100, 120, 100, 105, 120, 110, 105, 105, 99

After doing this what will be the value of L, S, and D?

- (b) What do values in the dictionary D represent?

2. Write a program that prompts the user for input until Enter is hit. Print out the mode (i.e. the item that appears most often). If there is more than one mode you can output any one. **Each group will be assigned ONE of the following two approaches:**
 - (a) Use lists, but **no** dictionaries.
 - (b) Use dictionaries, but **no** lists.