COSC 175 Dierbach
Spring, 2011

EXERCISE SET 4 * ANSWER SHEET *

19 pts.

Due Tuesday, March 8th

Lists

1. For the following list in Python that holds the high temperature for each day in a given week, in which the first number is the temperature for Sunday,

   [82, 90, 78, 76, 86, 84, 92]

   (a) Indicate how the temperature for Wednesday is accessed. (2 pts.)

   ```
   temps[3]
   ```

   (b) Give an expression that calculates the average temperature for the weekend. (3 pts.)

   ```
   avgWeekendTemp = (temps[0] + temps[6]) / 2
   ```

   (c) Using a while loop, compute and display the average temperature for the week. (4 pts.)

   ```
   sum = 0
   k = 0

   while k <= 6:
      sum = sum + temps[k]

   print 'Average temperature for week = ', sum / 7
   ```

   (d) Suppose the temperature for Friday were incorrect. Indicate how Friday's temperature can be changed to 83 degrees. (2 pts.)

   ```
   temps[5] = 83
   ```

2. Answer the following related to lists in Python.

   (a) Indicate how an empty list is represented in Python. (2 pts.)

   ```
   [ ]
   ```

   (b) Assuming that there exists a list named Values, indicate how a new value of 100 can be appended to the end of the list. (2 pts.)

   ```
   Values.append(100)
   ```

(c) For list Values containing an arbitrary number of integer values, give a set of instructions for finding and displaying the smallest value in the list. (4 pts.)

```
k = 1
smallest = Values[0]

while k < len(Values):
    if Values[k] < smallest:
        smallest = Values[k]

print 'The smallest value is', smallest
```