# Homework 6 Sorting lists Answers

1. Andrew has written some Python code, but it won’t run. He has made 3 syntax errors – highlight them and explain each one to Andrew.

people = [None]\*6  
for loop in range(6):  
 name = input("Enter a name: ")  
 people[loop] = name  
people = sorted(people)  
print(people)

1. Line 1: The loop will store 6 names, so the declaration needs to create 6 spaces  
 OR Line 2: The loop could be shrunk to store 5 values.

2. Line 4: The index needs to be the same as the loop counter. Changing the loop counter from ‘loop’ to ‘counter’ would also solve the problem.

3. The syntax for sorting a list is ‘sorted(listName)’, not ‘sort(listName)’.

[6 Marks]

1. Georgina wants to alter Andrew’s program so that the list of names is sorted in reverse order (from Z to A). Write just the one line of code that Georgina needs to edit and explain what she needs to do.  
     
   people = sorted(people,reverse=True)

[1 Mark]

3. Arthur has been looking at a program that will collect the scores in a cricket match and work out the key statistics. Add comments to explain how the program works.  
  
# This declares an empty list to store the scores  
#

scores = []  
more = "y"

# Each score is collected and added (appended) to  
# the end of the list

while more == "y":  
 newScore = int(input(“Enter a score: "))  
 scores.append(newScore)  
 more = input("More scores to add? (y/n): ")

# In this section the maximum, minimum, length, sum  
# and average are calculated, and then printed  
#

highest = max(scores)  
lowest = min(scores)  
howMany = len(scores)  
total = sum(scores)  
average = total/howMany  
  
print("Total scores: ",total)  
print("Highest score: ",highest)  
print("Lowest score: ",lowest)  
print("Average score: ",average)

[3 Marks]

[Total 10 Marks]