# Homework 5 Using lists Answers

1. Paula wants to check your understanding before she hires you as a new programmer. Answer the following questions about this list (called ‘royals’) to show your understanding:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Elizabeth | Charles | William | George | Henry | Andrew |

* 1. Who is ‘royals[2]’?  
     William
  2. Write out the list after this line of code has been run: royals[5] = “Beatrice”  
     Elizabeth,Charles,William,George,Henry,Beatrice
  3. Write the code that would change “Charles” to “Prince of Wales”  
     royals[1] = “Prince of Wales” [3]

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

scores = [0]\*2  
scores = [0]\*3  
scores0 = input(“Enter matches won: ”)  
scores[0] = input(“Enter matches won: ”)  
scores[1] = input(“Enter matches drawn: ”)  
scores[2] = input(“Enter matches lost: ”)  
points = 3\*scores[0] + 1\*scores[1]  
points = 3\*int(scores[0]) + 1\*int(scores[1])  
print(points)

1. Line 1: Three values need to be stored, so the list declaration needs to say 3

2. Line 2: A list needs square brackets around the index.

3. Line 5: The inputs will be text by default and can’t be multiplied. Either the 3 inputs will need to be int(input(…)) OR line 5 will have to cast the values as integers.

[3]

1. Olivia has been looking at a program that will collect in the names of atheletes as they finish a race and then search for a particular competitor. Add some comments to explain to her how the program works. [4]  
     
   # This declares an empty list called results.  
   #  
   results = []  
   more = “y”  
   # This section asks for a name and adds (appends) it to the  
   # end of the list.  
   while more == “y”:  
    name = input(“Enter the next name: ”)  
    results.append(name)  
    more = input(“More names to add? (y/n): ”)  
     
   name = input(“Who do you want to find? ”)  
   # This line checks to see if the name is in the list  
   #  
   if name in results:  
    # If the name is in the list then it prints out the  
    # position (index) of that name  
    print(name,”finished in position”,results.index(name))  
   else:  
    print(name,”not found”)

[Total 10 Marks]