Data Structures Study Guide

Complete the following study guide. Enter your answers below each question

1. A \_?\_ is an object that can be used to store a collection of related data

Data structure

1. Three examples of Data Structures are:

* List
* Tuple
* Dictionary

1. A \_?\_ is a data structure that holds an ordered collection of items in a sequence  
     
   List, tuple
2. Lists are specified by using what type of brackets?  
     
   Square brackets
3. Lists are \_?\_, meaning they can be altered.  
     
   Mutable
4. What will this line of code execute?  
     
   *myList = [‘pencil’, ‘notebook’, ‘laptop’]* **print(myList[0])**pencil
5. Using the .append() method to a list will add a new element to the \_?\_ of a list  
     
   End
6. What will this line of code execute?  
     
   *myList = [‘pencil’, ‘notebook’, ‘laptop’]***del myList[2]**[‘pencil’, ‘notebook’]
7. Tuples are specified by using \_?\_ when being defined  
     
   Parentheses
8. Tuples are \_?\_ meaning we cannot change them once they are declared  
     
   Immutable
9. What will this line of code execute?  
     
   *myTuple = (‘pencil’, ‘notebook’, ‘laptop’)*  
     
   **print(myTuple[1])**  
     
   notebook
10. A \_?\_ is a data structure that stores items in key-value pairs  
      
    dictionary
11. A dictionary is specified by using what type of brackets?  
      
    Curly braces
12. In a dictionary, the key in a key-value pair must be \_?\_  
      
    Unique
13. In a dictionary, keys and values must be separated by a \_?\_

Colon

1. What will this line of code execute?  
     
   **myDictionary = {1: ‘car’, 2: ‘truck’, 3: ‘motorcycle’}**  
     
   *print(len(myDictionary))*3
2. What will this line of code execute?  
     
   **myDictionary = { 1: ‘car’, 2: ‘truck’, 3: ‘motorcycle’}***print(myDictionary[1])*  
     
   car
3. A \_?\_ (two words) loop is common in iterating over Data Structures  
     
   for in
4. The .remove() function, when chained to a(n) \_?\_(type of Data Structure) will remove an item that is passed as a parameter  
     
   list
5. The amount of items a data structure contains is called its \_?\_

length