1. How are python dictionaries different from lists ?
   A.) Dictionaries allow you to store pairs. Not correct because you can store a pair in a list. Coordinates = [(1,0) , … (10,7)]
   B.) Dictionaries allow you to match a piece of data (value) with a specific name (key) Dictionary[key] = value
   C.) Dictionaries can store more data. Not true. Data storage is mainly dependent on your either your physical memory (RAM) or virtual...
   D.) Dictionaries are faster. Debatable. Because technically, you can search and find an element faster… but b was more correct.

2. True/False Dictionary keys can be of any type (string, integer, float , etc.)

3. True/False If I try to access an element that does not exist in the dictionary, it will cause an error
   Demoed with code…

```
List = ['a', 'b', 'c']
print(List[2])
# print(List[3])  #index Error

dictionary = {'a':1, 'b':2, 'c':3}

print( dictionary.get('c') )
print( dictionary.get('d') ) #will not be an error like in lists, just returns the value None

# print(dictionary['d'])  # use the method 'get '
```

4. Coding Exercise: You have been tasked with creating a survey at your school to determine which classes are favored amongst the students. Create a dictionary that stores the key values [compterScience, history, english] with the values [10, 1, 5]

   ```
   dict = { “computerScience” : 10, “history” : 1, “english” : 5 }
   ```

5. Coding Exercise: given the list nums = [1, 4, 1, 5, 6, 1 , 5] create a dictionary that stores the number of times a number is in a list with the number as the key.

   ```
   Dict = {}

   for number in nums:
           if Dict.get( number )  == None   :
                   Dict[ number ] =  1
           else:
                   Dict[ number ] =   Dict[ number ] + 1
   ```