

CS:1210 (22C:16) Quiz 9 Version (b)

You have 15 minutes to complete this quiz. Please put away your books, notes, and all electronic devices. Each problem is worth 5 points.

1. Suppose that `D` is the dictionary `{"what": "why", "are": "why", "you": "what", "why": "you", "next": "are", "hello": "are"}`. Given below are a bunch of expressions. Write down what each expression evaluates to.
 - (a) `D.keys()`
 - (b) `D[D["next"]]`
 - (c) `D.values()`
 - (d) `D.items()`
 - (e) `D[D[D["you"]]]`
2. Suppose that `D` is the dictionary `{"who": 1001, "which": 120, "what": 107, "when": 76, "why": 365}`. Write down the value of `D` after each of the statements below. Assume that each statement uses the same value of `D` shown above.
 - (a) `del D["which"]`
 - (b) `D["what"] = D["when"]`
 - (c) `D.update({"why": 400, "whence": 123})`
 - (d) `D["will"] = 987`
 - (e) `D.clear()`

3. Write a function `incrementFrequencies` that takes as its single parameter, a dictionary `D`. This keys of this dictionary are strings and the each key has an associated nonnegative integer as its value. You may think of the strings are words and the associated values as frequencies. The function `incrementFrequencies` is required to return a new dictionary obtained by adding one to the value of every key in the given dictionary. For example, if `D` were `{"hello":20, "hi":7, "text":3, "earthquake": 1000}` then the function call `incrementFrequencies(D)` should return `{"hello":21, "hi":8, "text":4, "earthquake":1001}`.