

**22C:16 Quiz 9**  
**Date: Apr 10th, 2012**

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1. [5 points] Suppose that `D` is the dictionary `{"what": "doing", "are": "what", "you": "next", "doing": "are", "next": "you", "Saturday?": "Saturday?"}`. Write down what the value of `D` is after each of the following Python statements. Evaluate each statement starting with the same value of the dictionary `D`, mentioned above.

(a) `D["what"] = D["are"]`

(b) `D.update({"Sunday": "Saturday?", "what": "what"})`

(c) `del D["you"]`

(d) `D["which"] = D[D["you"]]`

(e) `D.clear()`

**Turn over for Problem 2.**

2. [5 points] Suppose that `D` is the dictionary of 5-letter words and their “neighbors” constructed in the `playGame` program that we wrote in class last week. For words  $u, v$  appearing as keys in `D`,  $(u, v)$  is called an **isolated pair** if  $u$  has only one neighbor  $v$  and  $v$  has only one neighbor  $u$ . Write a function called `isolatedPairs` that takes this dictionary `D` as a parameter and returns the list of all isolated pairs. Thus the function should return a list of elements such that each element is itself a list of size 2. Note that each isolated pair  $(u, v)$  will appear in the returned list twice, once as `[u, v]` and once as `[v, u]`.
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