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### 15-112 Spring 2020 Quiz 5

Up to 25 minutes. No calculators, no notes, no books, no computers. Show your work!  
Do not use dictionaries, sets, try/except, or recursion on this quiz.

1. (4 points) **Free Response:** Words Ending in a Number

Write the function `wordsEndingInNumber(s)` which, given a string `s`, returns a list of words from the string which end with a number. You may assume that words in the string are separated by spaces.

For example:

```
wordsEndingInNumber("purple monkey5 dish washer12 74 2evergreen")  
returns ['monkey5', 'washer12', '74'].
```

2. **Code Tracing:** Indicate what the following two programs print. Place your answers (and nothing else) in the boxes next to the code.

(a) (2 points) CT1

```
def f(someList):
    res = []
    for i in range(len(someList)):
        x = someList[i]+1
        print("a",i,x)
        res.append(x)
        x += 4
        someList[i] = x
        print("b",i,x)
    print(someList)
    return res
```

```
def ct1():
    myList = [6,2]
    f(myList)
    print(myList)
```

ct1()

(b) (2 points) CT2

```
def ct2(s1,s2):
    res = ""
    for c in s1:
        if c in s2 and s1.count(c) != s2.count(c):
            res = c + res
    return res

print(ct2("purple", "pearl eater"))
```

3. (2 points) **Reasoning Over Code:** Find the integer arguments, a, b, c, d, and e, for the following function to cause it to return **True**. Place your answer (and nothing else) in the box next to the code.

```
def roc(a,b,c,d,e):
    s1 = "purple"
    s2 = "dishwasher"

    s3 = s1[1::b]
    s4 = s2[a] + s3[1] + s3[0]
    s5 = s2[c:d]
    s6 = s1[e] + s5 + s2[a]
    s7 = s4 + "_" + s6
    return s7 == "apu_lisa"
```