

Problem 1

- a. `quantities = [[0, 0], [0, 0], [0, 0], [0, 0]]` (choice "a")
- b. `print(quantities[0][0])`
- c. `q = quantities[2][1]`
- d. `quantities[-1][0] = 12`
- e. 45 elements (5x9)
- f. 9 rows
- g. `[[15,0],[0,0],[0,0]]`
- h. `[[15,0],[15,0],[15,0]]`
- i. `numbers = [[0 for cx in range(NUM_COLS)] for rx in range(NUM_ROWS)]`

Problem 2

```
for row in data:
    for col in row:
        print(' ', col, end=' ')
    print()
```

Problem 3

```
for i in range(NUM_COLS):
    print("Column {}: {}".format(i+1, sum([row[i] for row in account_yields])))
```

Problem 4

- a. yesnoyes
- b. abcabcab
- c. ef

Problem 5

- a. `word[1:-1]`
- b. `name.replace(',', '')`
- c. `sentence = sentence.replace('t', 'T')`
- d. `guess = '-' * len(word)`

e. There are two reasonable approaches:

1) *Create a copy with slicing:*

```
guess = guess[:4] + 'a' + guess[4:]
```

2) *Convert the string to a list, change the desired element, and convert back using str.join:*

```
temp = list(guess)
```

```
temp[4] = 'a'
```

```
guess = str.join('', temp)
```

f. `index = word.find('a')`

g. `guess = guess[:index] + 'a' + guess[index:]`

h. `days.split()`

i. `data.split('#')`

j. `last, first, idnum, status = data.split('#')`

Problem 6

a. `color.lower() == "blue"`

b. `color.lower() in ("blue", "b")`