

1. (8 points)

a. `[1,-6,'h',3][2]*(10/3)`

b. `[1] + [[3], 'a', [4, 5]]`

c. *removed question involving dictionaries*

d. `((len('1,2,3,4')) + [1,2,3][1]) > 6) and (not ('E' in 'exam'))`

2. (8 points) What value does `foo()` return?

```
def bar(a, b, c):  
    a = 7 - b  
    c[0] = a + 15  
    c = [8]  
    return [a, b, c]
```

```
def foo():  
    a = 4  
    b = a  
    c = [1, 2, b]  
    temp = bar(a, b, c)  
    a = a + 1  
    return (a, b, c, temp)
```

3. (6 points) Given two arguments, `value` (a number) and `items` (a list of numbers), `numItemsSmallerThanValue` should return the number of items that are smaller than `value`.

Complete the function with three simple expressions (at the places marked with ?). The function must be *recursive*; only very simple arithmetic operations and recursive function calls are allowed - you may not use loops or built-in “counting” methods.

```
def numItemsSmallerThanValues(value, items):  
    if items == []:  
  
        return ?  
  
    elif ?:  
  
        return ?  
  
    else:  
  
        return ?
```