

Quiz 20: Arrays SOLUTIONS

CSCI 110 Section 1

Monday, October 17, 2016

- 1) Determine the function signature of question 2. [warmup]

It's best to think about this starting from the parameters. The first sentence of question two tells us what we need to know: we want one array, and another array into which we can copy the first array's contents. Do we need to return anything? No. (Mental note: for functions that copy stuff, you can either create and return the copy, or take a pre-made one to copy stuff into)

You can choose the type that you want your arrays to hold. Here I've chosen arrays of boolean.

```
void copyArray(boolean[] from, boolean[] to)
```

- 2) Write a function to copy the contents of one array into another caller-provided array. Assume the second array is big enough to hold everything in the first array. [100 points]

Here's a simple, correct answer.

```
void copyArray(boolean[] from, boolean[] to) {  
    // Make sure to use from.length instead of to.length, since  
    // "to" could be bigger than "from"  
    for (int i = 0; i < from.length; i++) {  
        to[i] = from[i];  
    }  
}
```

Here's a fancier version that changes the return type to boolean.

```
// Returns true if the array named "from" could be
// successfully copied into "to".
boolean copyArray(boolean[] from, boolean[] to) {
    if (from == null || to == null) {
        return false;
    }
    if (to.length < from.length) {
        return false;
    }
    for (int i = 0; i < from.length; i++) {
        to[i] = from[i];
    }
    return true;
}
```