

CS 161 Recitation

Worksheet: Week 8

1. Define these terms: compile time vs. runtime memory, dynamic vs. static memory, allocate vs. deallocate

2. What are your questions/concerns about Assignment #5?

3. Write a function called "get\_array()" that will ask the user for a size, then return an array of integers on the heap of that size, consider what type this function will be:

```
_____ get_array(int *n){
```

```
}
```

4. What are the issues with making the array on the stack in the function above?

5. Looking at the function we made in question 3, could we have made this function a void function? What are your two options in C++? Write both function calls and prototypes?

6. Below is a loop that will implement our function from problem 3. How does this 2D array differ from 2D arrays we have seen in the past? Draw the "shape" of the 2D array as it appears in memory!

```
int **my2DArray = new int*[10];  
for(int i = 0; i < 10; i++)  
    my2DArray[i] = get_array(5);
```