**CS 302 Questions:**

1. The output of the code fragment would still output the same numbers as r, s, and t were initialized with. Since the *twist* function does not return the values calculated within the function, the new values calculated within the twist function does not carry over to the main print, assuming the cout statement is within the main, the output of the code segment is

**2 3 3**

1. **A.** If you were to initiate a 2D array without the initialization of columns, the compiler will automatically assume there is only 1 column, so any information attempted to put in that would normally go to the other column would never be stored.

**B.** int \*\* arr;

int row = 3;

int col = 5;

arr = new int\* [row];

for(int i = 0; i < row; i++) {

arr[i] = new int[col];

}

arr[0] ----------------> arr[0][0] arr[0][1] arr[0][2]

arr[1] ----------------> arr[1][0] arr[1][1] arr[1][2]

arr[2] ----------------> arr[2][0] arr[2][1] arr[2][2]

arr[3] ----------------> arr[3][0] arr[3][1] arr[3][2]

arr[4] ----------------> arr[4][0] arr[4][1] arr[4][2]

**(Diagram)**

1. *On its own cpp and h*
2. int main() {

int \* ptr;

int temp; *//removed temp pointer*

int x;

ptr = new int;

\*ptr = 4;

temp = \*ptr; *//set the value to the ptr value*

std::cout << \*ptr << temp; //*added std library so cout would function*

x = 9;

temp = x;

std::cout << \*ptr << temp; *//removed temp pointer*

ptr = new int;

\*ptr = 5;

std::cout << \*ptr << temp; *//removed temp pointer*

return 0;

}

**Output: 444949**