**Take-Home Quiz 8 (15 pts) – Recursion**

Using Canvas <https://canvas.wsu.edu/>, please submit your solution to the correct quiz folder. Your solution should be a .pdf file with the name <your last name>\_quiz8.pdf and uploaded. To upload your solution, please navigate to your correct Canvas ***lab*** course space. Select the “Assignments” link in the main left menu bar. Navigate to the correct quiz submission folder. Click the “Start Assignment” button. Click the “Upload File” button. Choose the appropriate .pdf file with your solution. Finally, click the “Submit Assignment” button.

1. (5 pts) What is recursion? Explain.

Recursion is the process of a function / algorithm calling itself directly or indirectly in itself.

1. (10 pts) Write a function recursive\_string\_copy() which accepts a *pointer* to a source string and a *pointer* to a destination string as parameters, recursively *copies* from the source to destination (including the null character), and returns nothing. You may not use any functions from <string.h>. Hint: each recursive step requires that you pass in the address of the next character to copy from the source and the address of the next destination character location.

void recursive\_string\_copy(char\* dest, char\* source) {

if (source[0] != '\0') {

\*(dest) = source[0];

recursive\_string\_copy((dest + 1), (source + 1));

}

if (source[0] == '\0') {

\*(dest) = '\0';

}

}