Exam 3 review for comp170

Arrays
        pointer
        1D and multi dimensional
        Slices, rows, columns
        Finding the address of an element in an array given a base address, array sizes, and indices
        Passing arrays to functions… what [] are required and where are sizes required
        Matrix operations
Functions
        Function overloading
Command Line arguments: void main(int argc, char* argv[])
c-style strings
        Define: array of characters with a null terminator
        Declaring and initializing
        null terminator – asci value 0, escape sequence \0
        Writing your own functions to work with them
        cin >> s; // where does it stop reading? What is the danger?
        cin.getline(s,100); // what does this do?
        Parse, delimiter, token
        Built in functions
                Strlen, strcpy, strcat_s, str, strtok_s, strcmp, _stricmp, strncmp, _strnicmp, strchr, strstr
                tolower, toupper
        Difference between 'a' and "a"; 'a' is just a single character. "a" is a c-style string with 2
        characters (the letter 'a' and the null terminator)
        use [i] to access a char at a given index
C++ Strings
        #include<string>
        String s;
        s.length();   s = s2; s += s2; s== s2; s.append(s2); s.find(s2); s.substr(i,j);
        string::npos – what find returns when it does not find what you are looking for
        use [i] to access a char at a given index or use the .at(i) function
Sorting – Selection sort and bubble sort. Be able to describe and write psudo-code
Linux intro –
        Operating systems – 3 responsibilities, memory management, process management, IO
        What is a terminal & terminal emulator?   Putty
        Command line programs: pwd, ls, cd, cd .., cd ~, mkdir, mv, rm, cp
        How to compile a c++ program : g++ code.cpp –o outputFile
        How to run the program after you compile it: ./outputFile
        ~ is your home directory
        vi - cool text editor
                modes: insert, command
                press 'i' to get into insert mode
                press 'esc' to get out
                :w to save :q to quite :wq to save and quit