Day 16 Highlights

1. Reminders
   1. zyBooks Chapter 6 due Monday at midnight
   2. Project Three is due next Friday
2. Quick review of functions
   1. **Function definition/implementation** – double distance(int x1, int y1, int x2, int y2){ // implementation here }
      1. Use void if you don’t have parameters or a return value
   2. **Signature** – double distance(int, int, int, int);
      1. Parameter names optional, but the types required
      2. Header files such as stdio.h or math.h have signatures for built-in functions
   3. **Function call** – result=distance(2\*p1x, 2\*p1y, 2\*p2x, 2\*p2y);

**How is a function call is executed?**

* 1. **Passing values** to a function
     1. Nomenclature – formal & actual parameter (argument)
     2. Pass by value - evaluate the actual parameters (expressions) and assign the values to the corresponding formal parameters (variables).
  2. **Returning information** from a function
     1. Functions return a single value at most
     2. Replace the function call with the value returned
     3. Can return lots of stuff via parameters (to be introduced)

1. Write a program that uses a function to return:
   1. The largest value of three integers
   2. The largest value in an array of integers
   3. The average (double)/sum (int) of an array of integers
   4. The number of vowels in a string
   5. C does not allow function overloading, but C++ does