

Write a program or function for each of the following. If you write a function, make sure you have a main program that tests the function. Include code and a sample run for each problem.

- 1) Write a program that allows the user to enter a list of 10 names. The program should then sort the names into alphabetical order and print the sorted list. You may use a sort of your choice.
- 2) Write a program that allows the user to enter in a set of data points. Each data point should consist of a time in seconds and an acceleration in  $\text{m/s}^2$ . The user should continue entering data until zero is entered for the time. The program should then print the integrated velocity. Assume that the time and acceleration both start at zero so the user does not need to enter 0,0 as the first data point.
- 3) Write a program that creates a structure (a C **struct**) to hold student information. The information should include Last Name, First Name, Number of credits completed, and Date of enrollment. The main program should allow the user to enter information on a student and then print out the information that was entered.
- 4) Write a program that allows the user to enter in multiple students (use the structure from problem 4.) The program should then enter a loop that allows the user to enter a student last name. The program should then print the remaining information for that student or students. The program should repeat this process until the user wants to quit.