

Name: _____

Class Day / Time: _____

Due Date: _____

Assignment #3: Programming Basics

Using excel or gliffy.com (EXCEL on the lab computers has a template for the symbols you'll need for the flowchart and HIPO chart on the bottom of the page– ask the lab aids or instructors for assistance if you have difficulty locating them) construct the diagrams for the problem described below.

1. Construct the algorithm for a program that will obtain from the user a current annual salary and a percent increase due on that salary. Assume that the new pay rate should have been in effect on January 1, and it is now July 1. Calculate, store, and output the new annual salary, the new monthly salary, and the retroactive pay due. Retroactive pay is the difference between what they should have received had they gotten their raise on Jan. 1 and what they did receive.

Perform a desk check using a starting salary of \$60,000 and a pay increase of 5%.

Perform a desk check using a starting salary of \$20,000 and a pay increase of 10%.

- Write down the **Input** and **Output** (include these on your HIPO chart below)
- Draw a **HIPO CHART** depicting the algorithm
- Write the **pseudo-code** for the algorithm (**can be done in a text editor or MS Word**)
- Make a **list of variables** (input, output, and processing) include these on the flowchart below
- Draw the **flowchart** (using the same names as you did in your variable list),
- Perform the requested **desk checks** for each algorithm (use the same format used in class – don't forget to include the output)

TURN IN (in the FOLLOWING ORDER) – stapled with your name above

- 1 – This page of the assignment as a coversheet
- 2 – HIPO chart with a list of inputs and a list of outputs
- 3 – Pseudocode
- 4 – Flowchart with a list of variables (make a list for each of the following: input, output, and processing)
- 5 – Desk check (follow the same format used in class – don't forget to include the output)