Computational Problem Solving   CSCI-603
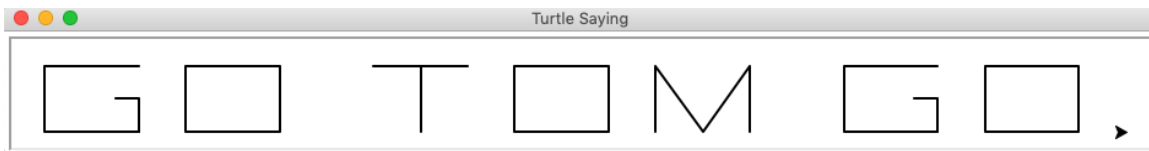# Write a Meme   Lab 1

1   Problem

Tom is a famous turtle. Using Python's turtle graphics module, think up and design the typography for some kind of short meme-like statement about Tom, then implement a program that draws the text message. No graphics are necessary.

You may choose to follow the above design, or you may design your own font.

1.1   Problem-solving Session (20%)

You will work in a team of three or four students as determined by the instructor. The first thing you must do is to come up with a saying about Tom. There are two constraints:

1. The word "TOM" must be part of the saying.
2. At least one letter must appear more than once.

Each team will then work together to complete the following activities:

1. Draw on a piece of graph paper how you want the letters to appear. Label enough points with coordinates so that the exact size of the letters and the spacing between them is clear.
2. Develop a design for writing messages where the turtle always starts at the same position and orientation relative to where the letter will appear. Decide and write down, for any letter about to be drawn, the expected initial orientation of the turtle and its location relative to that letter (precondition), and the location and orientation of the turtle when the drawing of the letter is finished (postcondition), ready to draw the next letter. Note that either the pre or post condition will make it clear how much spacing there will be between letters.
3. Each teammate should write turtle code for a function that draws a single letter. The code that does the work should be the body of a Python function that follows your design decisions above. The function declaration/header should have real Python syntax.

4. Write a main function that uses the single letter functions and draws out the whole message.

At the end of problem-solving, put all team members' names on the sheet, number each item and hand in your work, one copy per team.