ES302 Introduction to Determining Scale for Map Drawing

The attached blank map sheet is constructed with a bounding "neat line" such that there is a one inch margin with the edge of the 8.5 x 11 inch paper. You are sitting at a lab table in NS218 with your team members. Your goal is to draw a scale map of the lab table on the attached base, such that the actual length of the table is set to fully fill the longwise space between the neatlines, end to end. Complete the following tasks (SHOW ALL MATH WORK AS NEEDED):

(1) Using a meter stick, measure the actual length of the lab bench in meters: _____

    a. Actual length of lab bench in decimal feet: _____

(2) Actual width of lab bench in meters: _____

    a. Actual length of lab bench in decimal feet: _____

(3) L/W Aspect Ratio using actual dimensions in meters (dimensionless number):   _____

(4) Determine the map length equivalent of the bench in inches: _____

(5) Calculate the fractional scale of the map needed, to accomplish the task
as stated above: 1:_____

(6) Calculate the verbal scale of the map needed, as described above:

    1 in = _____ meters

    1 in = _____ feet

(7) Determine the map width equivalent of the bench in inches: _____

(8) Calculate the L/W Aspect Ratio using map units in inches (dimensionless)   _____

(9) Compare task 3 to task 8, they should be the same if the scale is accurate?

(10) Using an engineer's scale and pencil, carefully draw a scaled map model of the lab bench on the attached base, centering the table top width between the neatline border.