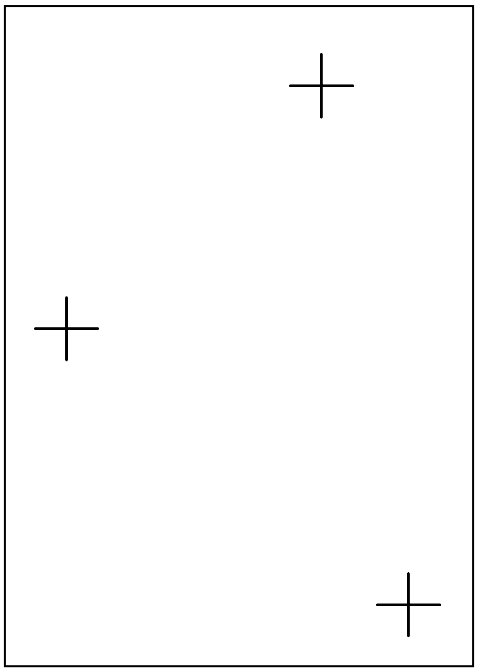
Assignment #2: Using Rulers, Compasses, and Triangles

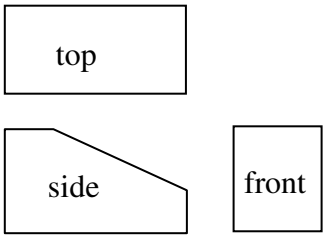
Due on February 10, 2025.

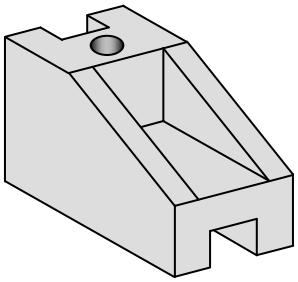
Use a plain drawing template sheet (i.e., no graph paper lines) for each drawing. Fill in the title block… the project is "ASSIGNMENT 2"; the part is "PROBLEM 1", etc. Do not submit this assignment sheet.

1. Using only a compass and a straight edge, try to fit parts a through h on a single sheet:
    a. Draw an equilateral triangle having a base that is inclined at about 20°, and a length of about 3 inches.
    b. Bisect each side of your triangle from part a.
    c. Somewhere else on your page, draw a line that is about 3 inches long, and inclined at about 70°. Then draw a perpendicular line of equal length that bisects it.
    d. Somewhere else on your page, draw three dots or crosses *at random* on a piece of paper, similar to those shown here. Locate the singular point that is equidistant from all three dots, then draw the only circle that touches all three original points.
    e. Draw 2 lines that are joined at their lower left ends: the first is about 2 inches long, and inclined at about 30° from the horizontal. The second is about 3 inches long, and inclined at about 75°. Draw a third line that bisects the angle between them.
    f. In a circle having a diameter of about 3 inches, inscribe an equilateral triangle.
    g. Draw another circle of diameter about 3 inches. Inscribe a hexagon in it.
    h. Draw a line of length about 4 inches at an angle of about 40°. Divide it into 5 equal segments.

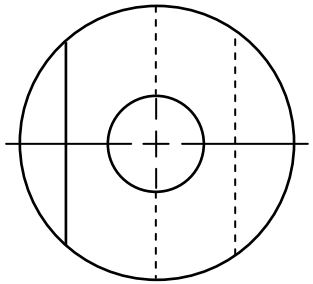


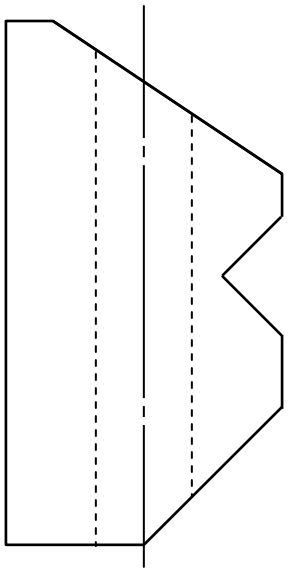
2. On a second sheet, make a 3-view drawing of the following object, using appropriate line types and weights. Separate each view by one inch. Draw at full scale, assuming that the length of the longest line on the base is 3 inches. A rough sketch of the appropriate layout is also shown. Do not add dimensions.

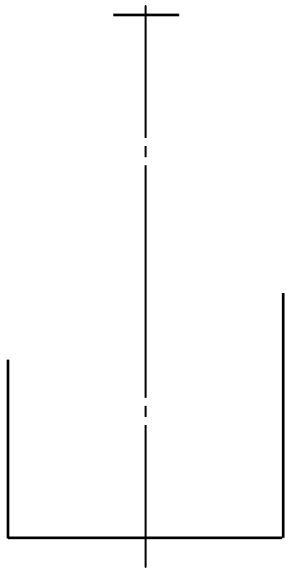




3. Two of three views are already completed and shown on the attached sheet. The third is view is already started for you. Print it, then complete the third view. Do not add dimensions.







PART:	
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