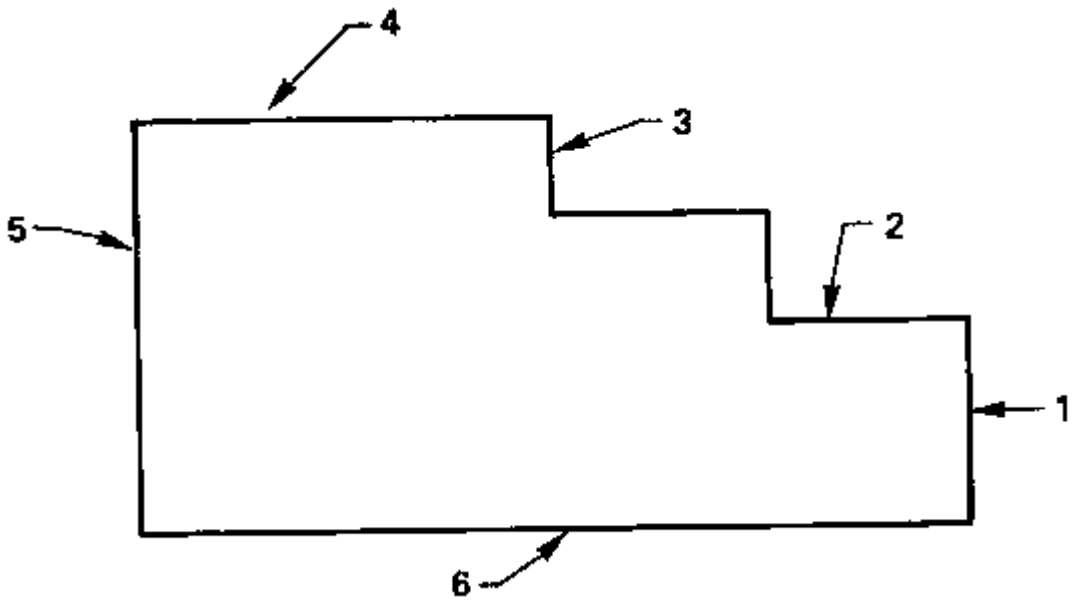
Chapter 2 – Communicating with a Sketch

Sketching Problems – Solutions

PROBLEM 2.1

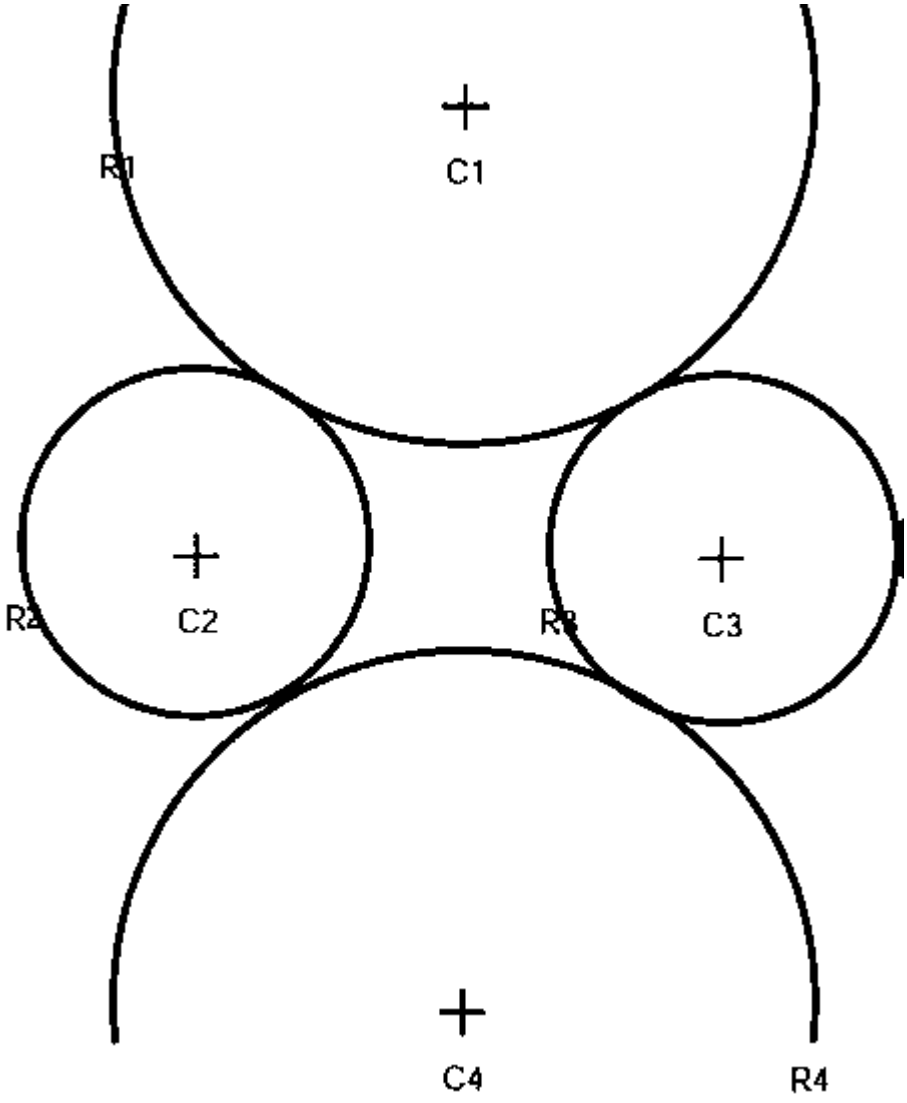
On a separate sheet of paper list the length, direction, and proportion of each line numbered in the drawing for Problem 2.1. Remember to use the measurement line method described in this chapter. Do not measure the lines with a scale. Example: Line 2 is the same length as line 1 and touches the top of line 1 at a 90° angle.



<u>Student answers may vary. There are possible answers: Line 3 is vertical and is about 4 times as long as Line 4 and touches the right end of the Line 4 at a 90˚ angle. Line 4 is horizontal and is about the same length as Line 5 and meets 90˚ at the top of Line 5. Line 6 is horizontal and is about twice as long as Line 5. Line 6 meets 90˚ at the bottom of the Line 5.</u>

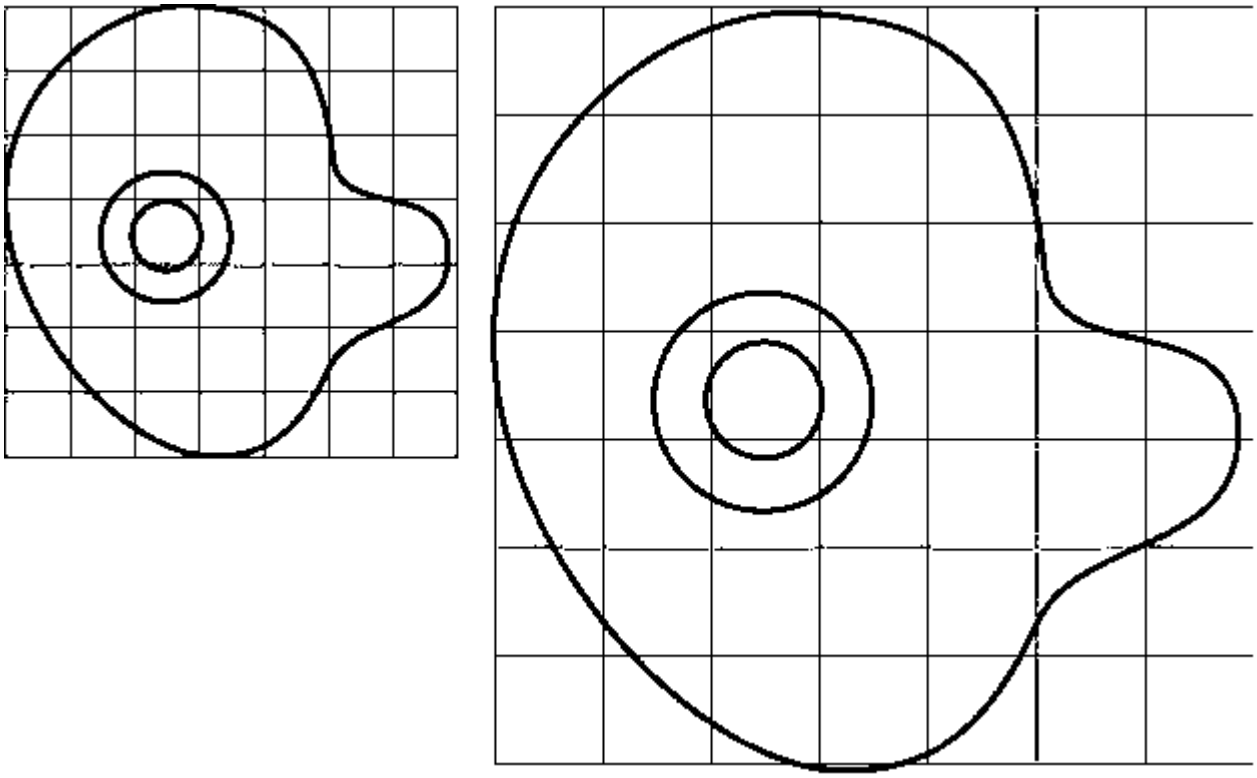
PROBLEM 2.2

On a separate sheet of paper, use the trammel method to sketch circles, given the center points and the radius of each circle as shown in Problem 2.2. For example, *C1* represents the center, and *R1* is a point establishing the radius for circle 1, *C2* and *R2* for circle 2.



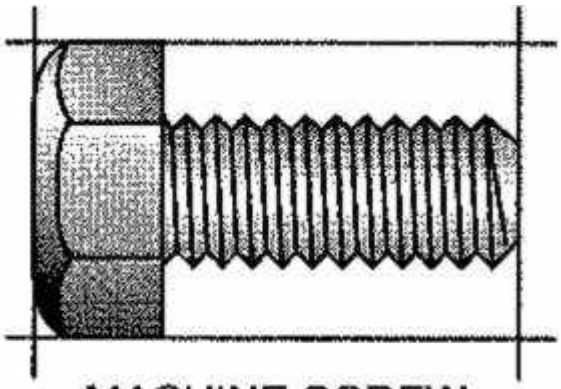
PROBLEM 2.3

Given the drawing for Problem 2.3 of a cam, on a separate sheet of paper sketch the cam larger in a similar rectangular grid. Use the grid as a guide, as described in this chapter.



PROBLEM 2.4

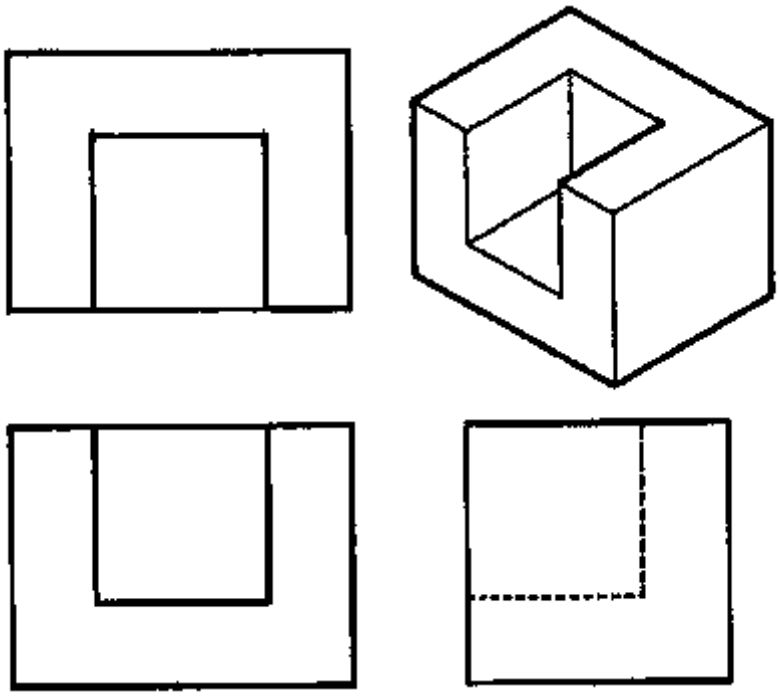
On a separate piece of paper, make a sketch of the machine screw drawing for Problem 2.4. Use a frame of reference to make your sketch twice as big as the given sketch.



MACHINE SCREW

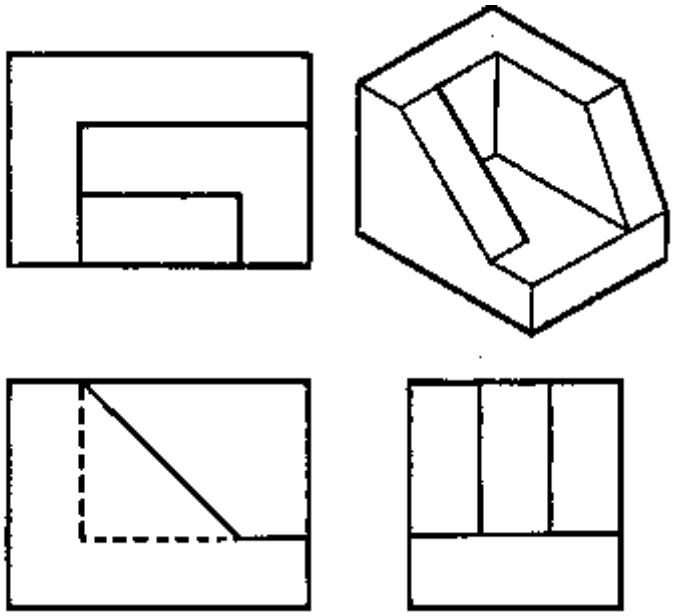
PROBLEM 2.5

Pocket block. Using the pictorial drawing for Problem 2.5 as a guide, sketch the multiviews and missing lines in the multiviews.



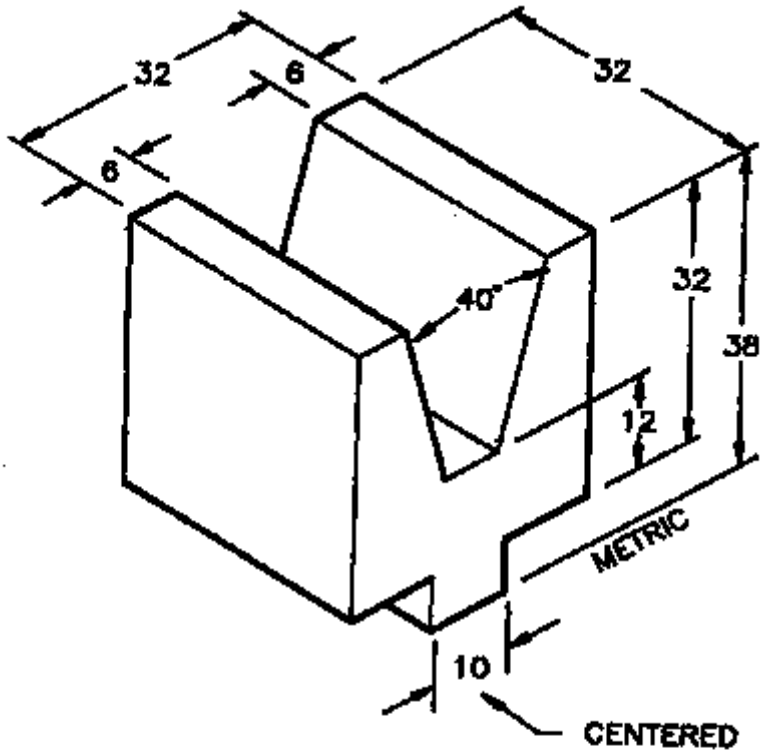
PROBLEM 2.6

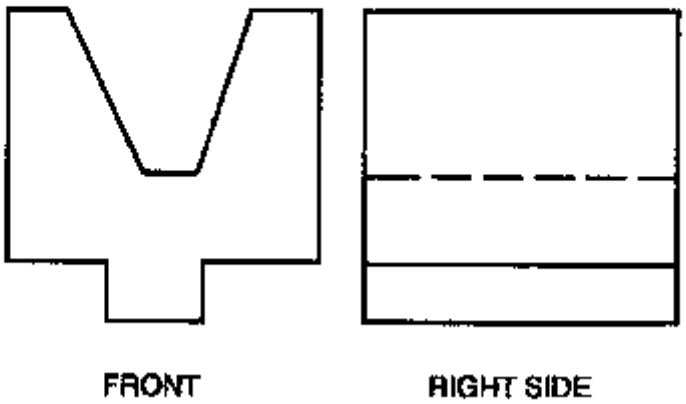
Based on the drawing for Problem 2.6, on a separate sheet of paper sketch the multiviews and the missing lines in the multiviews. **Solution will vary**



PROBLEM 2.7
Find a stapler, tape dispenser, coffee cup, or something similar and sketch a 2D frontal view using the block technique on a separate sheet of paper. Do not measure the object. Use the measurement line method to approximate proper proportions.
Solution will vary depending upon the selected object

PROBLEM 2.8
Given the pictorial drawing of the V-block for Problem 2.8, sketch a front and right -side view. Use the measurement line method to approximate dimensions when preparing your sketch on a separate sheet of paper.





CHAPTER 3 – Scales and Precision