

**Engineering Graphics
Principles**
with
Geometric Dimensioning
and
Tolerancing

**with
CD-ROM**

E. Max Raisor FIAE, Professor
Mechanical Engineering
Brigham Young University

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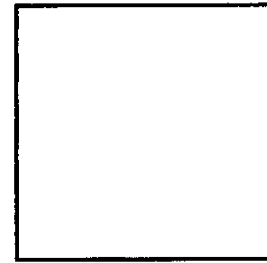
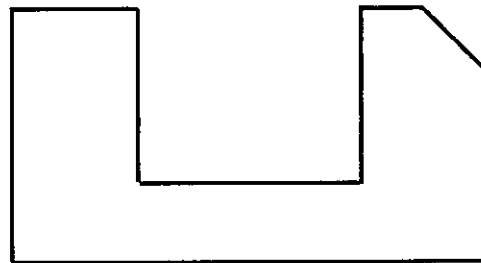
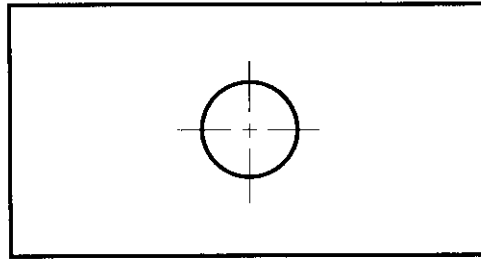
The pages for the exercises are printed on one side only (odd numbered pages) with a perforated edge for easy removal from the book. The even numbered pages are blank; therefore they have not been included with this sample chapter.

Orthographic Projection Problems

The following problems correspond with the slides in the *Introduction* and *Orthographic Projection* presentation. Follow the instructions for each problem, and for all but the special slides labeled “*Self Evaluation*”, solution slides are available in the presentation materials on the CD.

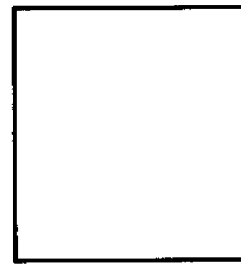
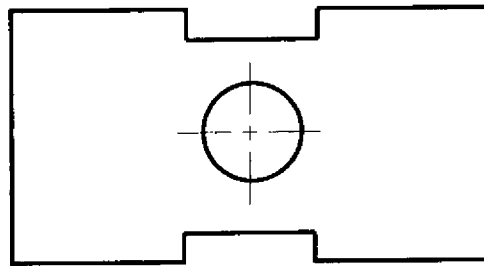
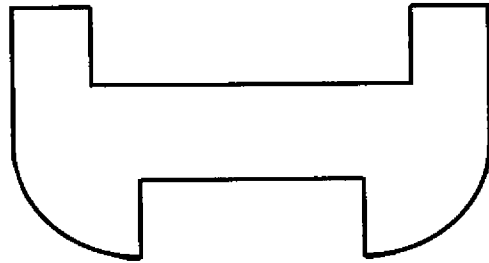
Problem #1—Orthographic Projection

Complete the views below by projecting all missing lines.



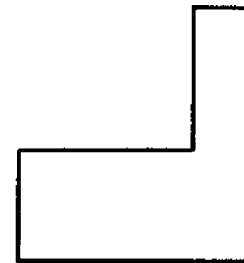
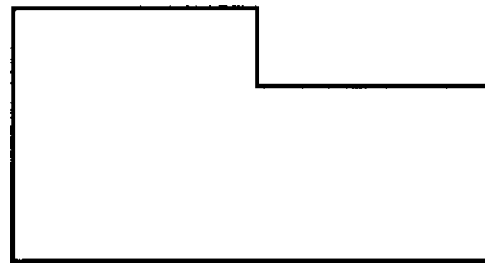
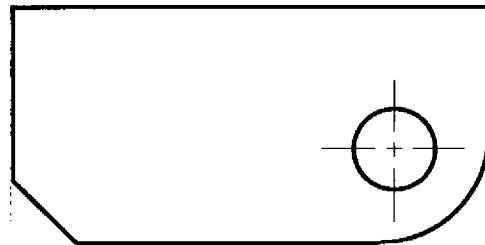
Problem #2—Orthographic Projection

Complete the views below by adding any missing lines in all three views.



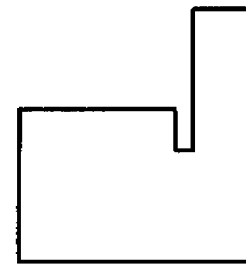
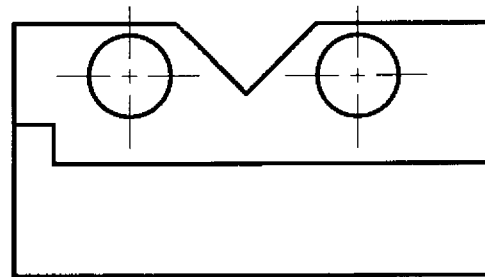
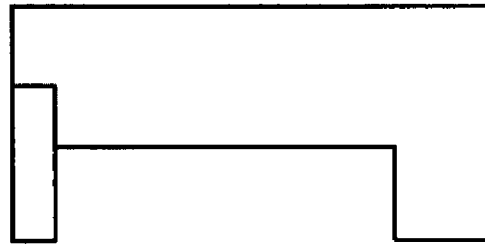
Problem #3—Orthographic Projection

Complete the views below by adding any missing lines in all three views.



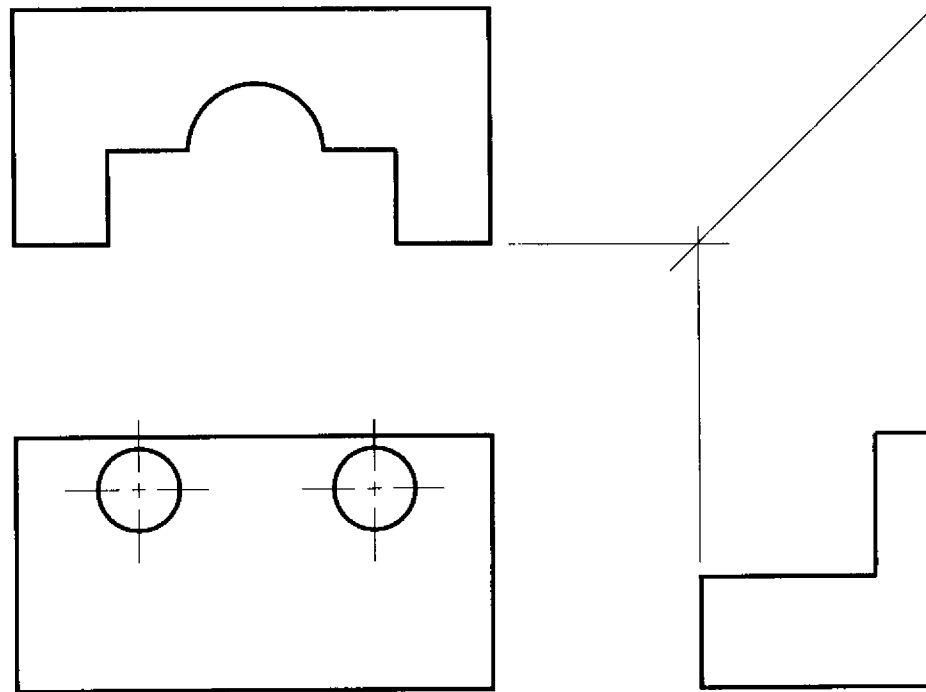
Problem #4—Orthographic Projection

Complete the views below by adding any missing lines in all three views.



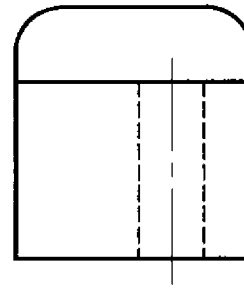
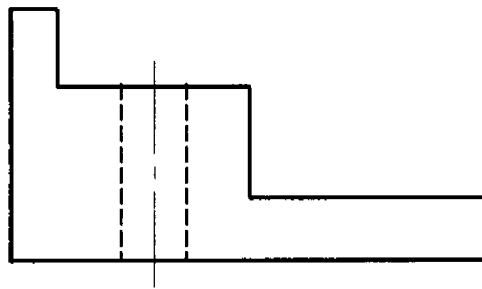
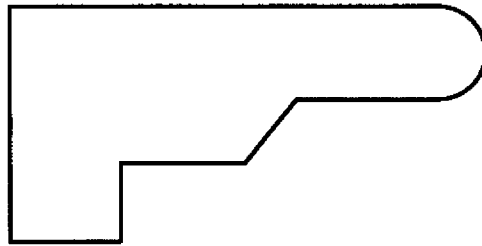
Problem #5—Orthographic Projection

Complete the views below by adding any missing lines in all three views.



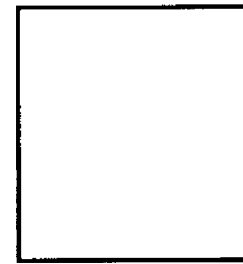
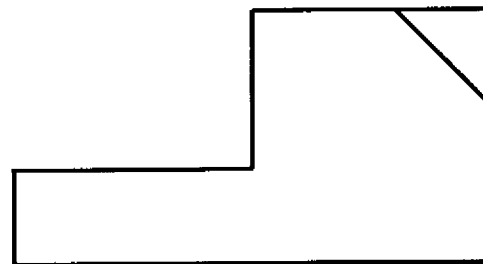
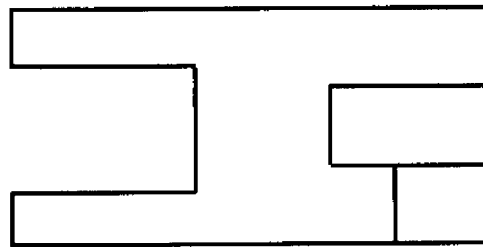
Problem #6—Orthographic Projection

Complete the views below by adding any missing lines in all three views.



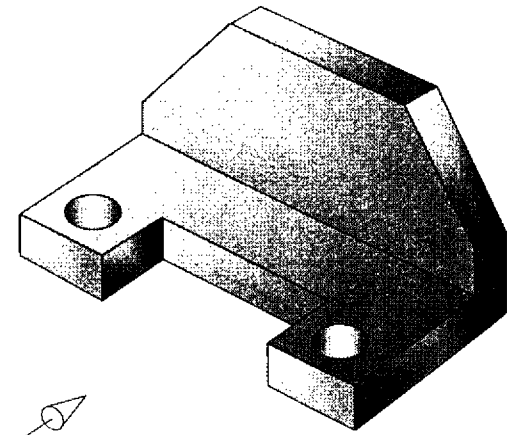
Problem #7—Orthographic Projection

Complete the views below by adding any missing lines in all three views.



Problem #8—Orthographic Projection

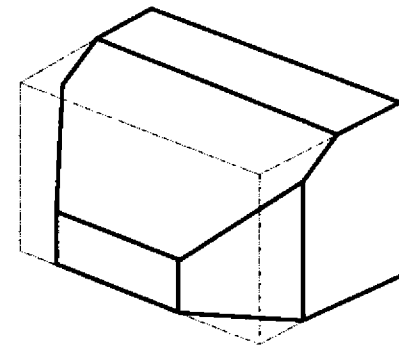
Using the principles of orthographic projection, construct the front, top, and right side views of the object shown below.



Front

Problem #9—Orthographic Projection

Using the principles of orthographic projection, construct the front, top, and right side views of the object shown below.

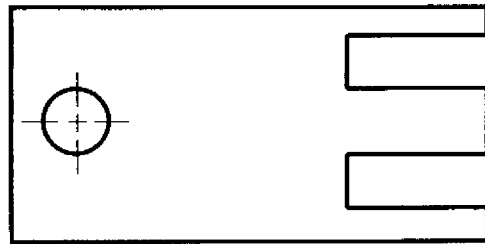


Orthographic Projection SELF EVALUATION

There are four self-evaluation problems in this section.

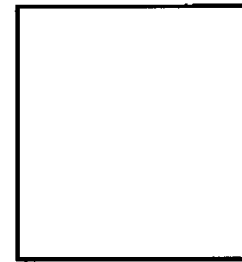
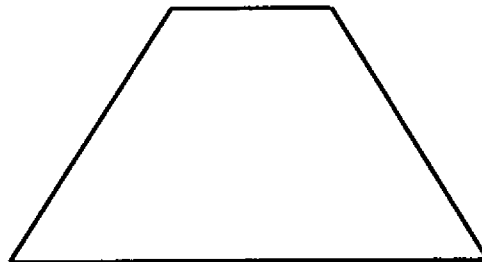
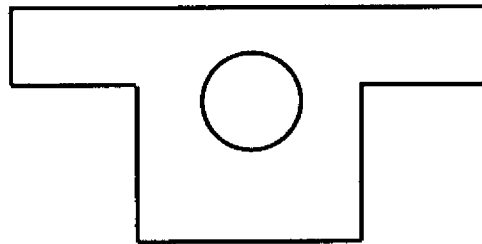
Problem #10—Orthographic Projection Self Evaluation (Consisting of Problems 10 – 14)

Complete all three views by adding any lines that may be missing. Make certain that all object, hidden, and center lines are accounted for in each of the three views.



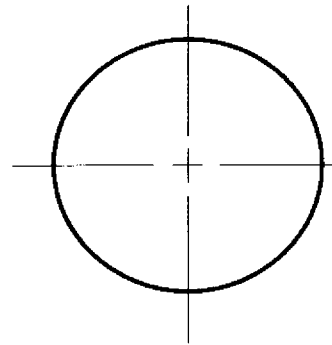
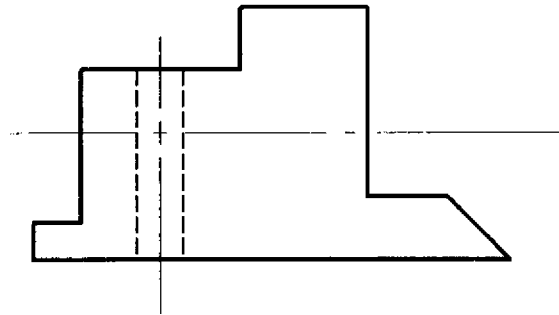
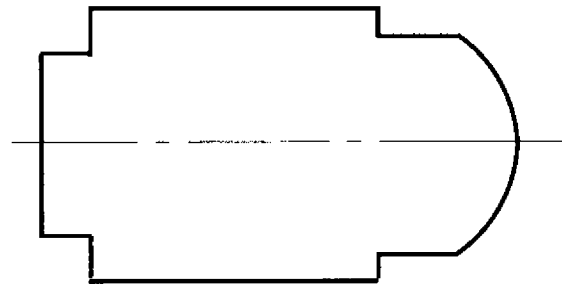
Problem #11—Orthographic Projection Self Evaluation (Consisting of Problems 10 – 14)

Complete all three views by adding any lines that may be missing. Make certain that all object, hidden, and center lines are accounted for in each of the three views.



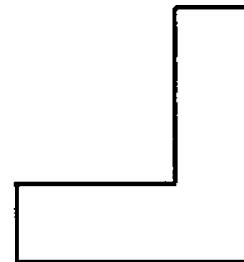
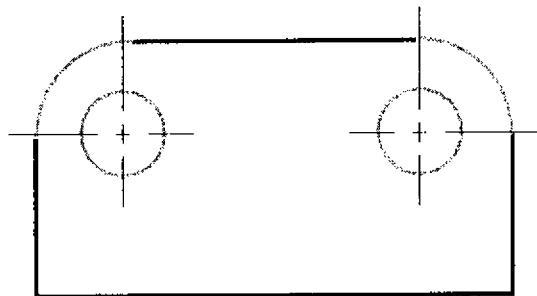
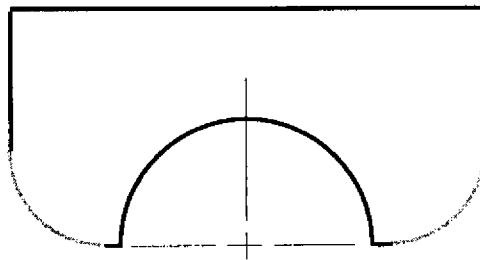
Problem #12—Orthographic Projection Self Evaluation (Consisting of Problems 10 – 14)

Complete all three views by adding any lines that may be missing. Make certain that all object, hidden, and center lines are accounted for in each of the three views. *Problems 10-14 in your packet are to be turned in for evaluation and grading (see due date for assignment #1 on your class schedule).*



Problem #13—Orthographic Projection Self Evaluation (Consisting of Problems 10 – 14)

Complete all three views by adding any lines that may be missing. Make certain that all object, hidden, and center lines are accounted for in each of the three views.



Problem #14—Orthographic Projection Self Evaluation (Consisting of Problems 10 – 14)

Complete all three views by adding any lines that may be missing. Make certain that all object, hidden, and center lines are accounted for in each of the three views (the small hole in the front view is a threaded (tapped) hole). *Problems 10-14 in your packet are to be turned in for evaluation and grading* (see due date for assignment #1 on your class schedule).

