

Test #1 Overview

Related Material:

- Chapters A,B,C,D,L, and M in the Engineering Graphics Workbook
- Sketching Assignments 1 - 5

Format:

- Time limit: 1 hour
- No books or notes are allowed during the test.
- Most problems will be sketching exercises that are similar to workbook problems.
- All sketches will use either rectangular or isometric graph paper (provided). No rulers or scales will be needed.
- Some multiple-choice, True/False, or fill-in-the-blank problems to test terminology, minor issues, etc.
- No questions related to Inventor will be on this test.

Major Topics: (This list is not intended to exclude any topics. Anything covered in class may be on the test.)

1. Sketching
 - “enclosing box” method for circles
 - “enclosing parallelogram” method for ellipses
 - good line work
2. Orthographic Projection (Multi-view Drawings)
 - Standard arrangements of views (6-view, 3-view, 2-view, etc)
 - Common dimensions between views
 - Alignment of points and shapes between views
 - Line types
 - Line precedence
 - Missing line problems (good visualization practice)
3. Isometric Sketching
 - Isometric graph paper
 - Angles of principal axes
 - Sketching isometrics from given orthographic views
4. Dimensioning
 - Linear dimensions
 - Dimensioning arcs, circles, and angles
 - Baseline and continued dimensions
 - Placement of dimensions – which view is best?
 - Symbols for center, countersink, counterbore, depth
 - Fillets and rounds
 - Direction of dimension figures
 - Systems of units
 - Numerous style issues for dimensioning
 - Avoiding redundant dimensions
 - Providing overall dimensions
 - Leaders
 - Notes
5. Tolerance
 - General tolerance notes
 - Tolerance styles (symmetrical tolerances, max and min dimensions, limit dimensions)
 - Mating shafts and cylinders (maximum clearance and allowance)
 - Interference and clearance fits