1. Use your triangles to draw two parallel lines going through the two points.

2. Use your triangles to draw a perpendicular line going through the point and extending to the dashed line.

3. Draw a parallel line that is 0.5" above the line shown.

4. Draw a 1" diameter circle centered on the cross-hairs.

\[ R = \frac{D}{2} = \frac{1}{2} \]

5. Draw a parallel line that is 20 mm above the line shown if the scale is 1 : 4.

\[
\text{paper} \rightarrow 1 : 4 \leftarrow \text{actual} \\
5 \text{mm} \rightarrow 20 \text{mm}
\]

6. Draw a circle that is 1.5 ft larger in radius if the scale is: \( \frac{1}{4} = 1' \).

\[
2\frac{3}{8} = 1.5'
\]
7. In the two rows below, write the digits ‘0’ to ‘9’ and capital letters ‘A’ to ‘Z’. Use the correct drafting strokes. Draw as neatly as possible with even spacing between letters.

8. Which paper size is larger: A or E?

9. Determine the reading indicated on the metric scale and print the answer in the space provided.

Show how the scale should be stated in the title block of the drawing.

10. Determine the reading indicated on the architects scale and print the answer in the space provided.

Show how the scale should be stated in the title block of the drawing.

11. Determine the reading indicated on the Engineers’ Scale using the scale shown and print the answer in the space provided.
11. Draw the top, front and right side views of the shape shown. Include all visible lines, hidden lines, centerlines and circle center marks. Dimensions are not required. Assume that the
13. Draw an auxiliary view off of the front view shown below. Include all visible and hidden lines.

14. Circle the right side view which should be used with the given top and front view of the single solid object in each problem.
15. What are the “Model” and “Layout” tabs used for when using AutoCAD?

The "model" tab is used to select the real-world space where everything is drawn full size without scaling.
The "layout" tab is used to select the paper space which has the title block and where the drawing is to scale using viewports.

16. List two ways of constructing circles in AutoCAD.

- Center & Radius (or Diameter)
- 2 Points
- 3 Points
  - tan, tan, radius
  - tan, tan, tan

17. Sketch the lines that would result if the following positions were entered in sequence in AutoCAD for the line command:

Command: LINE
Specify first point: 3, 2
Specify next point or [Undo]: @3<90
Specify next point or [Undo]: @3, 0
Specify next point or [Close/Undo]: #3, 2

Recall that for dynamic input (at the mouse) the ‘@’ does not need to be entered. For command line input the ‘#’ is not entered.