

# Freehand Sketching

## Study Guide

(Chapter 5 Technical Drawing)

1. Proper sketching techniques is one of the \_\_\_\_\_ that a drafter must master.
2. A properly drawn sketch will act like a \_\_\_\_\_ for the completion of the final paper or CAD drawing.
3. Drafters who \_\_\_\_\_ solutions \_\_\_\_\_ placing lines on paper or the CAD screen can often complete a drawing \_\_\_\_\_ and with fewer \_\_\_\_\_ than those who cannot \_\_\_\_\_ effectively.
4. The term "*freehand sketching*" does not mean a \_\_\_\_\_ or \_\_\_\_\_ freehand drawing in which no particular effort has been made.
5. A freehand sketch should be made with \_\_\_\_\_ and \_\_\_\_\_ to \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_ line widths.
6. What three materials are required for freehand sketching? \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
7. \_\_\_\_\_ paper can be helpful, especially to someone who cannot sketch reasonably well without \_\_\_\_\_.
8. A specially ruled isometric paper is available for \_\_\_\_\_.
9. \_\_\_\_\_ pencils such as \_\_\_\_\_ or \_\_\_\_\_, should be used for freehand sketching. The lead should be sharpened to a \_\_\_\_\_ point.
10. What type of pencil point should be used to draw center lines, and dimension lines? \_\_\_\_\_
11. What type of pencil point should be used to draw visible lines? \_\_\_\_\_
12. Sketches are done using four different projection methods. Name the two methods that are missing from this list. \_\_\_\_\_, \_\_\_\_\_ (\_\_\_\_\_), Oblique, Perspective.
13. Objects should be sketched in their correct \_\_\_\_\_ as \_\_\_\_\_ as possible.
14. Techniques of lines -- The freehand construction line is a \_\_\_\_\_ rough line in which some strokes may \_\_\_\_\_. All other lines should be \_\_\_\_\_ and \_\_\_\_\_.

15. Make visible lines \_\_\_\_\_ so the outline will stand out clearly, make hidden lines, center lines, and dimension & extension lines \_\_\_\_\_.

16. Describe the technique for sketching straight lines.

17. Describe the procedure for sketching long lines.

18. Describe two methods for finding the midpoint of a line.

a)

b)

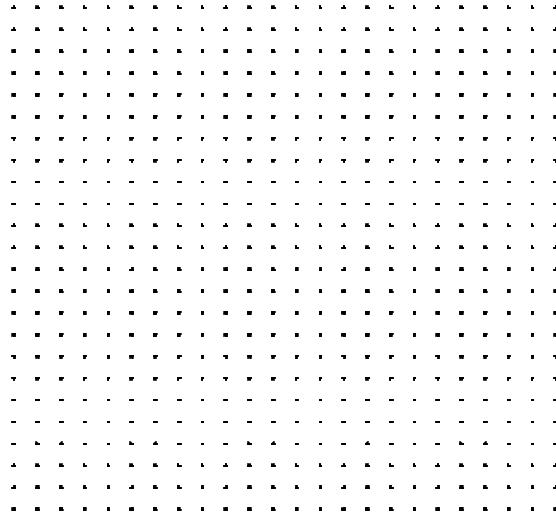
19. Describe one of the four methods shown for drawing a circle.

Use the method described to draw a circle below using the center point and the radius given.

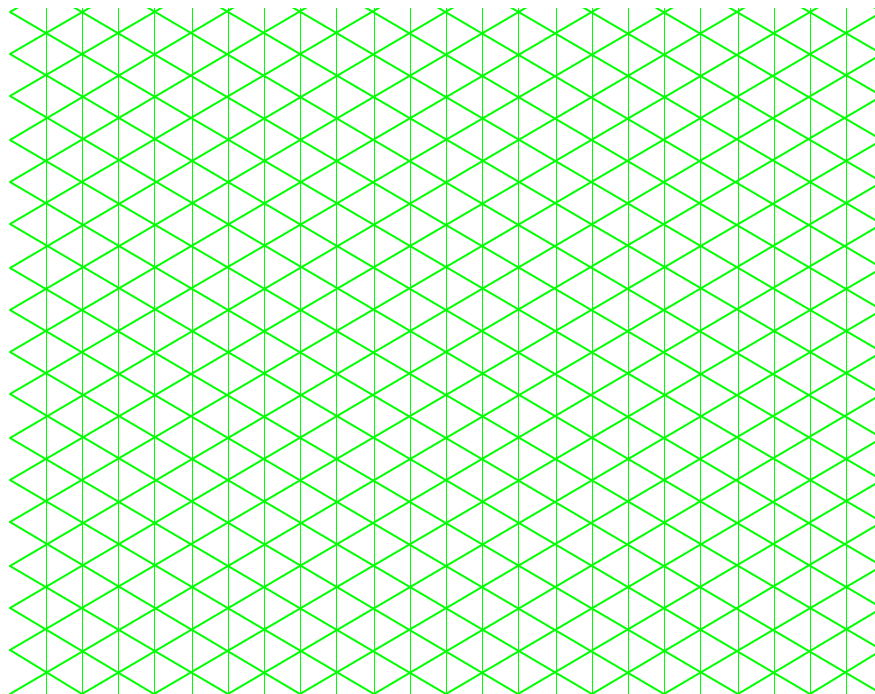


20. The **Most Important** rule in freehand sketching is \_\_\_\_\_ the sketch in \_\_\_\_\_. No matter how brilliant the technique or how ell the small details are drawn, if the \_\_\_\_\_ especially the large overall \_\_\_\_\_ are bad, the sketch will be bad.

21. In the space below, using the steps given at the bottom of paragraph 5.9 maintaining proportions. Sketch the Utility Cabinet shown in Figure 5.16. Concentrate on correct proportions.



22. Use the Isometric grid lines below to sketch the Guide Block shown on Page 130. Follow the steps given in Paragraph 5.13.



23. What is a Multiview Projection?

24. Which three views of an object are considered the three regular views?

\_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_

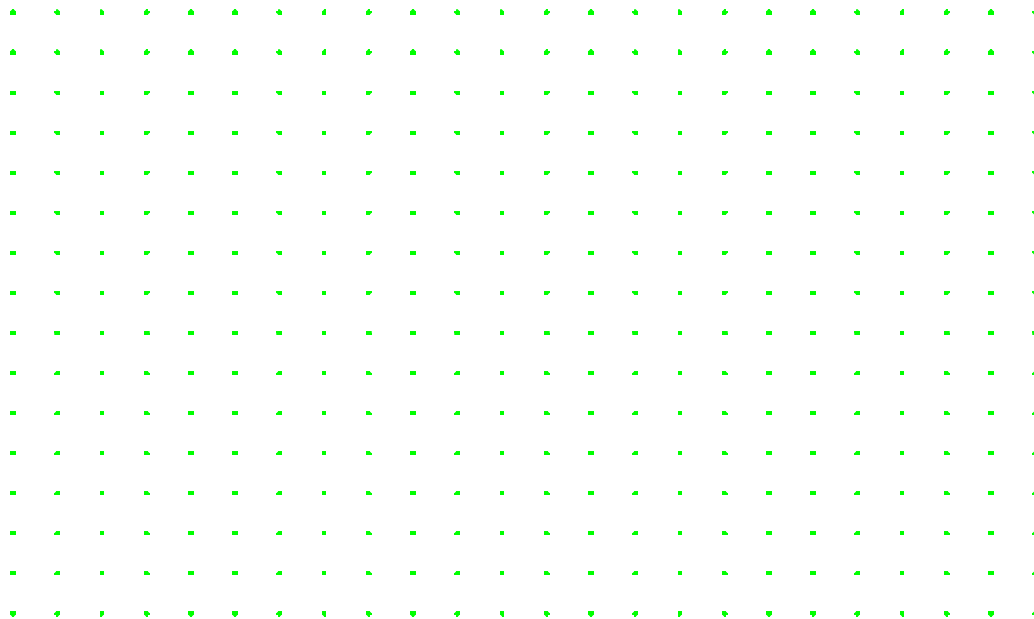
25. An important advantage of a view over a photograph of an object is that \_\_\_\_\_ features can be clearly shown by means of \_\_\_\_\_ lines.

26. When sketching architectural drawings, the views shown for the front, left, right and rear views are also called \_\_\_\_\_ and the top view is known as the \_\_\_\_\_ view.

27. What is a center line used for?

28. When is a center line drawn on a sketch?

29. Sketch the three views of the Lever Bracket using the steps shown in paragraph 5.27 page 139 and the illustrations in figure 5.46.



30. Errors in arranging the views are so commonly made by students that it is necessary to repeat this: ***The views must be drawn in accordance with the \_\_\_\_\_ arrangement shown in Figure 5.33.***