

STUDY QUESTIONS FOR STEP 4

1. List three (3) uses for freehand sketches:

Allows for people to quickly convey their ideas in a quick drawing.

Allows for people to record their ideas.

Good preliminary drawing.

2. What does a "multiview sketch" show you about an object?

It shows you the actual shape of an object from different directions that are 90 degrees apart.

3. List the three (3) principle views that are shown on a multiview sketch:

Top, Bottom, and Left

4. List in your own words the steps to follow in the making of a multiview sketch:

1. Pick a side to view the object from
2. Set up the space
3. Outline the object
4. Locate the rounded edges/curves
5. Add details
6. Darken visible lines
7. Darken the hidden lines
8. Add dashed lines to the circles and arcs

5. What does a "pictorial sketch" show you about an object?

A pictorial sketch shows you the overall shape from one direction.

6. List the three (3) principle types of pictorial sketches:

Isometric, Oblique, and Perspective.

7. Why is the "isometric pictorial sketch" the most commonly used type of pictorial view?

It is the easiest to create because actual measurements are used.

8. What overall shape should an object have to utilize an "oblique view"?

It should have a cylindrical shape.

9. What does a "perspective sketch" show you about an object?

Provides the most realistic view of an object.

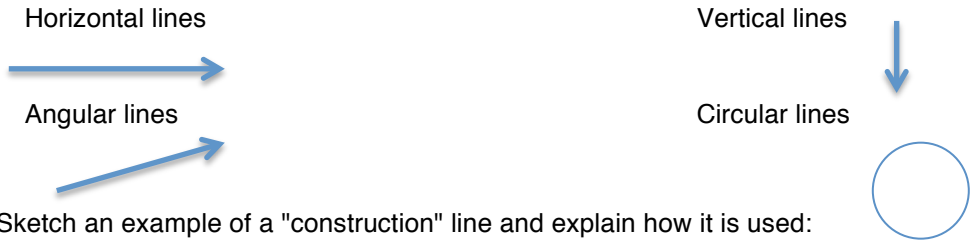
10. What does a "floor plan" and an "elevation" show you about a building?

A floor plan show you the house from the top view without the roof on, and the elevation shows you the height of the house including all of the outside features such as doors and windows from a front view.

11. List in your own words the steps to follow in the making of a pictorial sketch:

1. Analyze the object
2. Layout the axis
3. Add dimensions
4. Form a box in which the object may fit
5. Find arcs or curves
6. Add details
7. Darken visible lines
8. Erase un-needed lines

12. Show and label with arrows the recommended methods for sketching the following lines:



13. Sketch an example of a "construction" line and explain how it is used:



They are thin lines that are used for preliminary layouts of the object.

14. Sketch an example of a "visible" line and explain how it is used:

These are thick lines that show the outline or the shape of an object.



15. Sketch an example of a "hidden" line and explain how it is used:



Medium thick dashed lines used to show the edges of an object.

16. Sketch an example of a "center" line and explain how it is used:

Center lines are used to locate the centers of circles or arcs.

17. Is it necessary to erase "construction" lines?

No, because they are already so thin that they should not be seen anyway.

18. What shape does a circle become when sketched on a pictorial view?

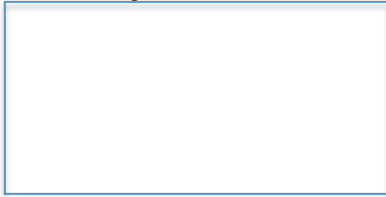
It becomes a sphere.

19. Is it necessary to sketch objects in the proper "proportions"?

Yes, because if you draw something out of proportion it could end up 20 times bigger than you wanted it to be.

20. Make freehand sketches of the following using appropriate "proportions" in the space below:

1" x 2" rectangle



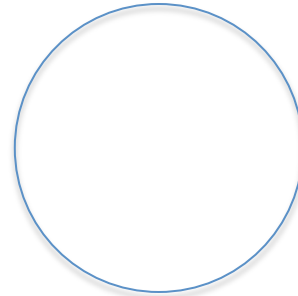
two 1.5" parallel lines 1/2" apart



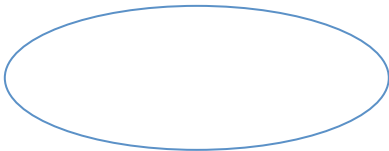
two 3/4" perpendicular lines



1.5" diameter circle



2" isometric ellipse



30°, 60° & 90° triangle a 45°, 45° & 90° triangle

