

STUDY QUESTIONS FOR STEP 4

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

Allows detailers, designers, engineers, architects, technicians and trades persons to record their ideas quickly on paper without the use of tools, they can revise and refine their sketches for presentation to their supervisors or clients, and Sketching is also helpful in preliminary planning of a drawing or layout before using tools.

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

Shows the actual shape of an object from different directions that are 90° apart. A typical multiview sketch will include views from the top, front and right side.

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

The top, front and right side

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

ANALYZE THE OBJECT.

LAYOUT THE VIEWS.

BLOCK IN THE VIEWS

LOCATE DETAILS

ADD DETAILS.

DARKEN VISIBLE LINES

DARKEN HIDDEN LINES

ADD CENTER LINES

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

Shows the overall shape of an object from one direction. There are three types of pictorial sketches: isometric, oblique and perspective.

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

Isometric cabinet oblique Perspective

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

The isometric is the easiest to create as actual measurements are used and the shape of arcs and circles is consistent on all surfaces

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

Furniture or cylindrical shaped objects

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

Provide the most realistic view of an object but are more difficult to create as all distances must be shortened

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

A floor plan sketch is similar to a top view with the roof removed and shows interior walls, windows, doors, appliances, fixtures, built-in cabinetry and stairways. An elevation is similar to a front view and shows the height of the structure plus exterior materials like siding, doors, windows, trim and roofing.

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

ANALYZE THE OBJECT.

LAYOUT THE AXIS FOR AN ISOMETRIC SKETCH.

ADD DIMENSIONS TO THE AXIS.

BLOCK IN THE VIEWS.

LOCATE DETAILS.


ADD DETAILS.


DARKEN VISIBLE LINES.


ERASE EXCESS LINES.

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

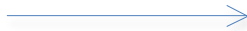
Horizontal lines 

Vertical lines 

Angular lines 

Circular lines 

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



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



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



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



17. Is it necessary to erase "construction" lines? **no**

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

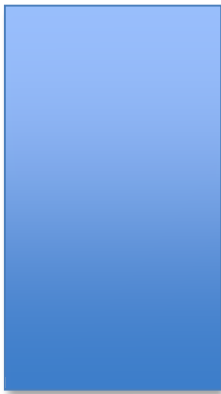
Ellipse

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

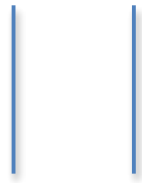
Explain: because people need to see how to build it to proportion.

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

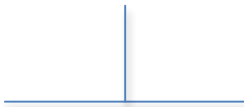
1" x 2" rectangle



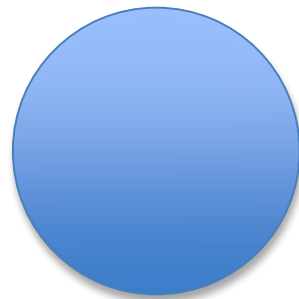
two 1.5" parallel lines 1/2" apart



Two 3/4" perpendicular lines



1.5" diameter circle



2" isometric ellipse



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

