

STUDY QUESTIONS FOR STEP 4

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

Free hand sketching is used to record an idea quickly on paper without the use of tools. It is also used to help in preliminary planning of a drawing or layouts before using tools.

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

It shows the shape of an object in different types of views. This type of sketch is 2D.

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

Top, front, and the right Side

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

Step 1. Determine the object. Step 2. Layout. Step 3. Block in views. Step 4. Find details. Step 5. Show details. Step 6. Darken the lines. Step 7. Darken the hidden lines. Step 8. Add the center lines.

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

It shows the overall shape of an object from one direction. This type of sketch is 3D.

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 to make the measurements of a shape.

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

The overall shape used for the oblique view is cylindrical.

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

It provides you with a realistic view of the object.

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

A floor plan shows the top view of the object or building that shows detail from interior walls, windows, doors, and other appliances. Elevation is the front view of an object or building that shows detail like siding, doors, windows, trim and roofing.

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

Step 1. Determine the object. Step 2. Layout. Step 3. Add dimensions to the axis. Step 4. Block in the views. Step 5. Find details. Step 6. Add details. Step 7. Darken the lines. Step 8. Erase excess 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:

A construction line is used to help layout preliminary shapes.

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

A visible line is used to show the outline of the object.

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



A hidden line is used to show the outlines inside an object.

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



They are used to locate the center point of holes or the central axis of a cylinder

17. Is it necessary to erase "construction" lines? Explain: No, because they are drawn very light and you won't need to erase it

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

It becomes an oval.

19. Is it necessary to sketch objects in the proper "proportions"? Explain: You do not have to because when you make the actual prototype then you use proportions.

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

1" x 2" rectangle



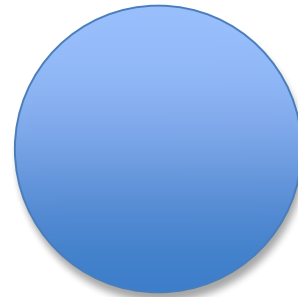
two 1.5" parallel lines 1/2" apart



Two 3/4" perpendicular lines



1.5" diameter circle



2" isometric ellipse



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

