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STUDY QUESTIONS FOR STEP 4

1. List three (3) uses for freehand sketches:
 - They can record their ideas quickly on paper without the use of tools.
 - They can revise their sketches.
 - It is helpful in planning.
2. What does a "multiview sketch" show you about an object?
 - It shows 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:
 - It shows views from the top, front and right side. The back, bottom and left side views are optional depending on the complexity of the objects shape.
4. List in your own words the steps to follow in the making of a multiview sketch:
 - Choose the orientation.
 - Begin at the lower left area of the sheet and place four dots or dashes vertically to represent the height and width of the object with about one inch of space between the measurements.
 - Sketch very light construction lines horizontally and vertically at the dots or dashes to establish the outline of each view.
 - Use light construction lines to locate changes in the shape of the object and to show the location of holes or rounded corners.
 - Use very light construction lines to create a box that represents the diameter of holes or the radius of rounded corners.
 - All lines that represent visible edges of the object should be shown as solid thick lines.
 - Use thin long and short dashed lines to locate the center of holes.
5. What does a "pictorial sketch" show you about an object?
 - It shows the overall shape of an object from one direction.
6. List the three (3) principle types of pictorial sketches:
 - They are isometric, oblique and perspective.
7. Why is the "isometric pictorial sketch" the most commonly used type of pictorial view?
 - It is because it's 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"?
 - It is used for cylindrical shaped object.
9. What does a "perspective sketch" show you about an object?
 - It provides the most realistic view of an object.
10. What does a "floor plan" and an "elevation" show you about a building?
 - It is similar to a top view with the roof removed, and elevation is similar to a front view and shows the height of the structure.
11. List in your own words the steps to follow in the making of a pictorial sketch:
 - First, analyze the object.
 - Second, you should layout the axis for an isometric sketch.
 - Third, add dimensions to the axis.
 - Fourth, block in the views.
 - Fifth, locate details.
 - Sixth, add details.
 - Seventh, darken visible lines.
 - Last, 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:
Preliminary layout work

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

15. Sketch an example of a "hidden" line and explain how it is used:
It is used interior edges, non-visible surfaces.

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



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

No because you are going to go over it with visible line.

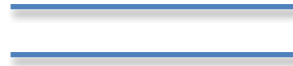
18. What shape does a circle become when sketched on a pictorial view?

It shows only side part of circle.

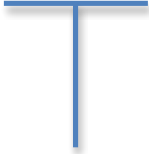
19. Is it necessary to sketch objects in the proper "proportions"? Explain

Yes because if not then it wouldn't be a picture that you wanted.

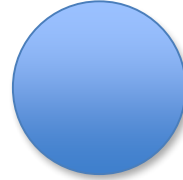
20. Make freehand sketches of the following using appropriate "proportions" in the space below :
1" x 2" rectangle



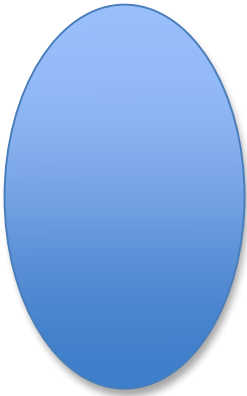
two 3/4" perpendicular lines



1.5" diameter circle



2" isometric ellipse



30°, 60° & 90° triangle



45°, 45° & 90° triangle

