Sample Problems

Directions: Make an isometric drawing for the item shown in the orthographic drawing below. One unit length in the orthographic drawing should correspond to one unit length on the isometric grid. Do not include centerlines. The point A is given for reference.
Directions: On the rectilinear grid make a set of orthographic drawings for the object shown in the isometric drawing. The vertical hole has a bottom 2 units down!
Directions: Make an isometric drawing for the item shown in the orthographic drawing below. The point A is given for reference.
Directions: On the rectilinear grid make a set of orthographic drawings for the object shown in the isometric drawing. NOTE point A is given for reference.
1. (2 points) The face on the object shown below is what kind of surface?

   a) Inclined  
   b) Oblique  
   c) Principal

2. (3 points) Circle the appropriate answer(s).

   In a set of orthographic projections, the top view of an object shows
   
   i) width  
   ii) height  
   iii) depth

3. (2 points) If the coordinates of point A in the following isometric are X=0, Y=0, and Z=0 and the grid points are 1 unit apart, what is the location of point B?

   a) X=5, Y=2, Z=5  
   b) X=2, Y=5, Z=5  
   c) X=5, Y=5, Z=2  
   d) X=2, Y=2, Z=5

4. (2 points) Which of the following is a correctly drawn isometric according to the rules given in class?

5. (2 point) A hole that is not drilled all the way through an object is called:
   a) partial  
   b) through  
   c) blind  
   d) oblique
6. (2 points) What kind of surface is not parallel to any principal plane of projection and can be seen with its characteristic shape in all three views of a standard orthographic drawing?
   a) Inclined  
   b) Oblique  
   c) Normal  
   d) True-Length

7. (2 points) If a line appears as a point in one view of a standard three view orthographic drawing (you are looking directly down the line), then
   a) The line will appear as a line in the other two views  
   b) The line will appear as a point in both the other two views  
   c) The line will appear as a point in one other view and a line in the other  
   d) None of the above

8. (2 points) Which of the following is a correctly drawn isometric according to the rules given in class?

![Isometric Drawing]

9. (2 points) A hole that is not drilled all the way through an object is called a _______ hole and hidden lines ________ be used to show this feature on an isometric drawing.
   a) partial, may  
   b) partial, may not  
   c) blind, may  
   d) oblique, may  
   e) blind, may not

10. (2 points) _______ sketches present the object in one projection, showing _______ of the objects’ three dimensions.
    a) Orthographic; two  
    b) Pictorial; two  
    c) Orthographic; three  
    d) Pictorial; three  
    e) Orthographic; one