

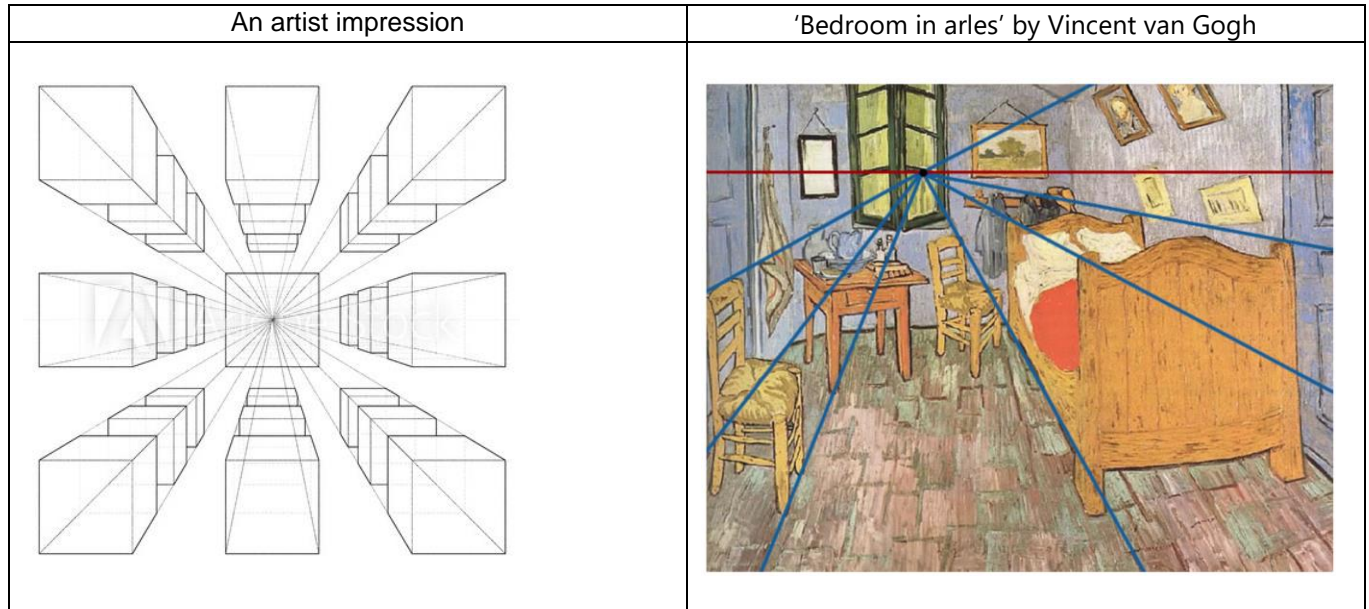
6.2 Perspective and Orthographic Drawings

A Perspective

- ✓ a Mathematical way of representing a three dimensional image on a two dimensional surface

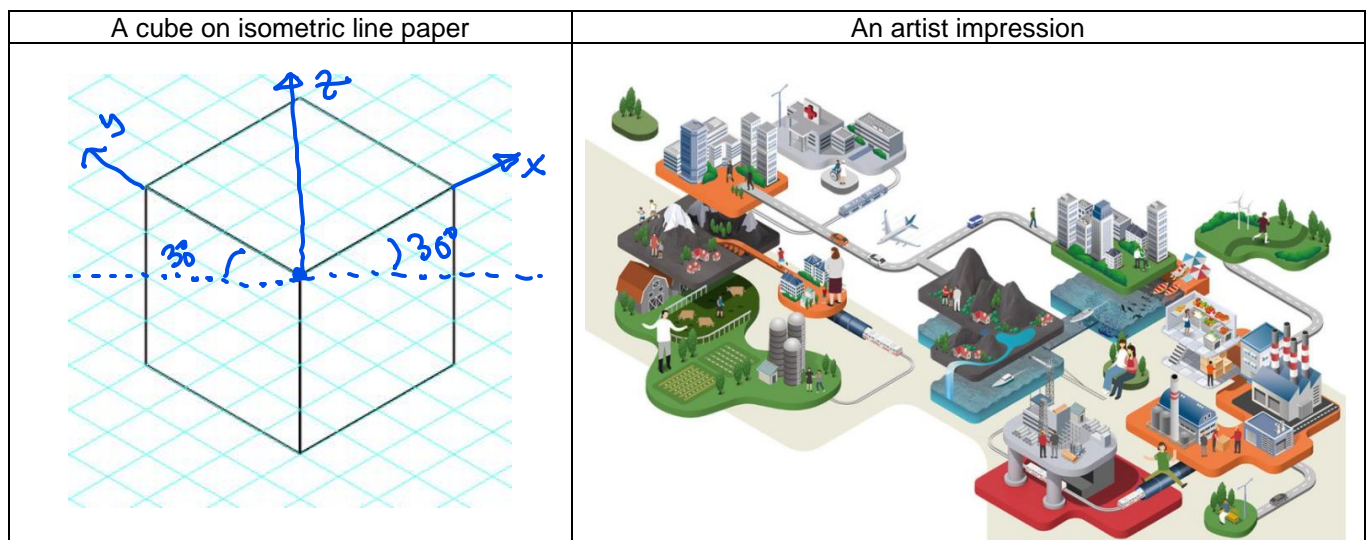
B One-Point Perspective

- ✓ Includes:
 - Horizontal lines
 - Vertical lines
 - Lines that radiate from a unique point called the vanishing point
- ✓ Mimic what the human eye perceives
- ✓ objects appear smaller the further away they are from the viewer



C Isometric Perspective

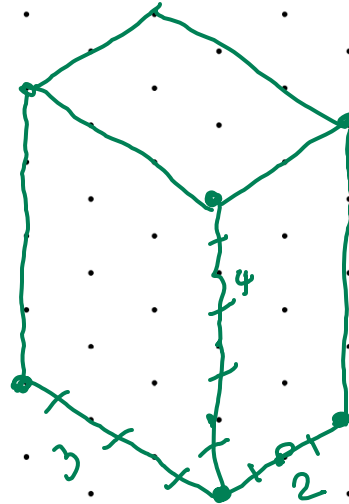
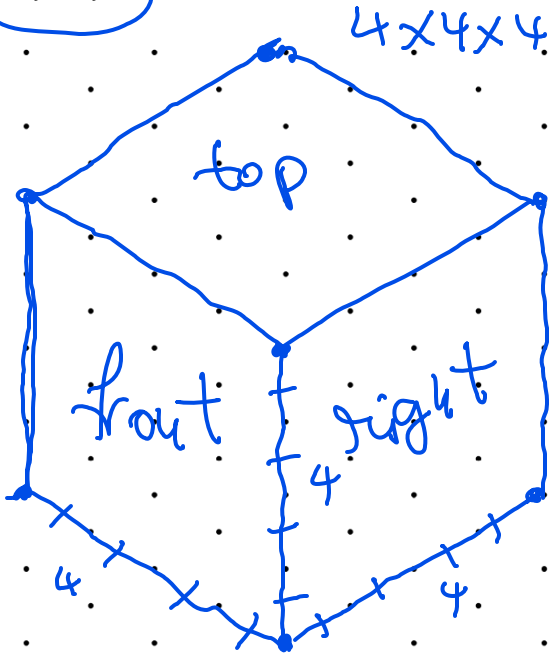
- ✓ Use parallel projection
- ✓ Objects remain at the same size, no matter how far away they are
- ✓ Three axes (sides) meet at a point making an angle of 120° with one another
- ✓ Use isometric (dot or line) graph paper to draw



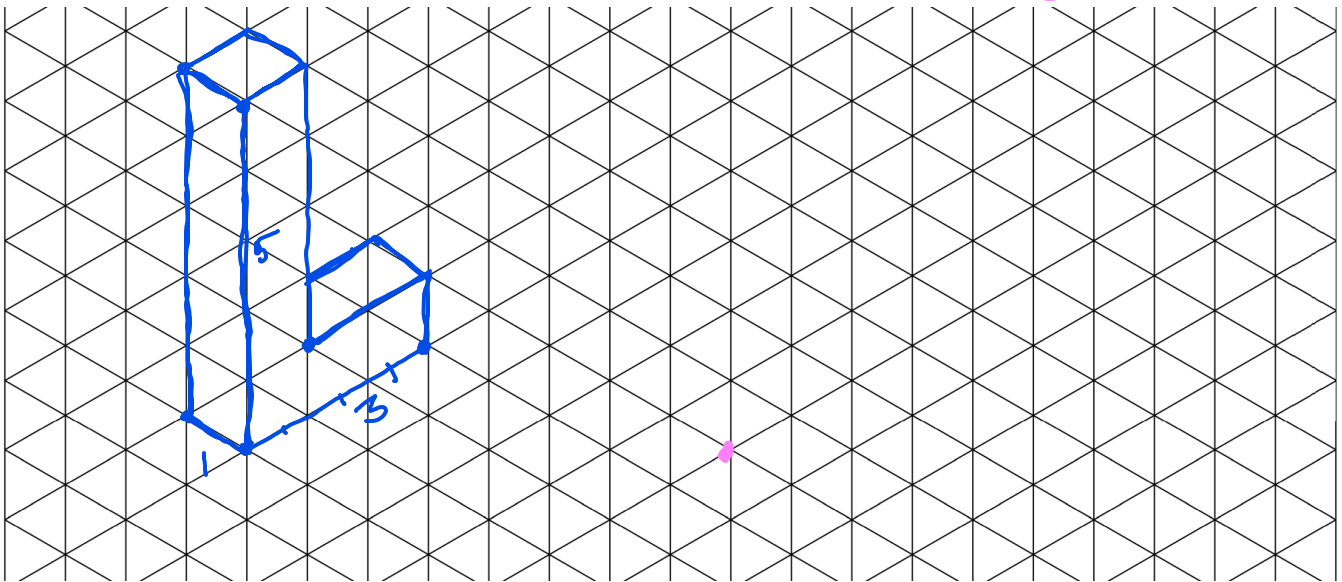
2x3x4

4x4x4

Activity 1. Use the isometric dot paper below to draw a cube a side length 4 and a rectangular box with dimensions: 2 by 3 by 4.

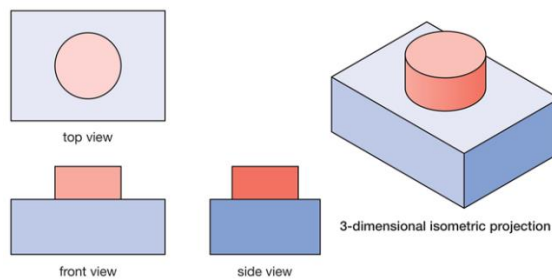


Activity 2. Use the isometric line paper below to draw three dimensional letters: I, L, and C.

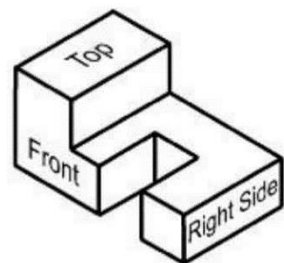
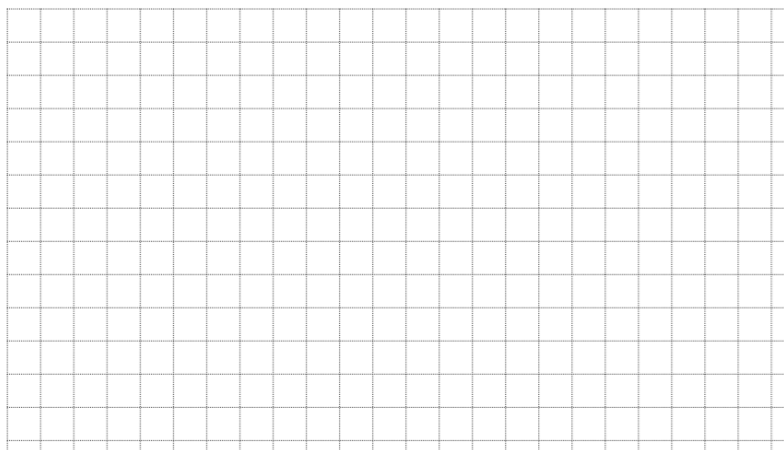


D Orthographic Projections

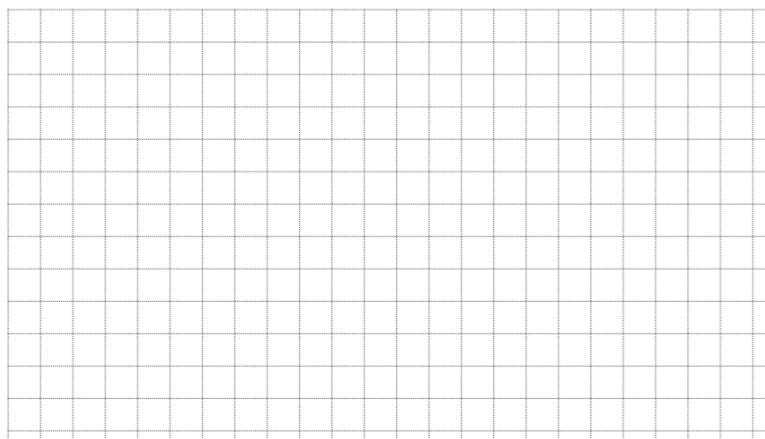
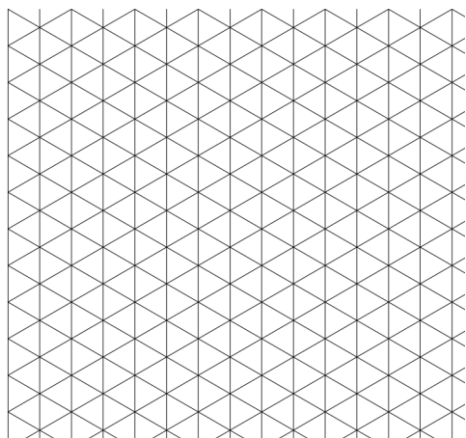
✓ A series of drawings illustrating the front, side, and the top view of the object



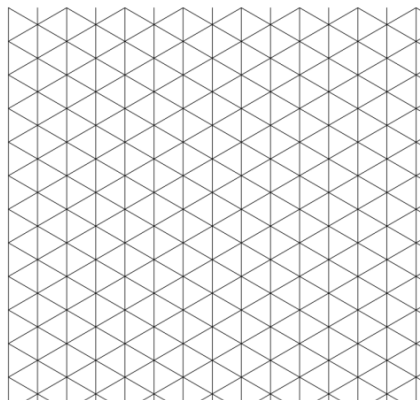
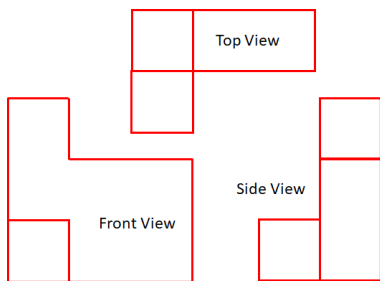
Activity 3. Draw the orthographic projections for the following 3-dimensional object.



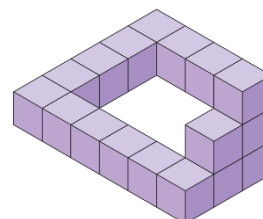
Activity 4. Use the isometric line paper below to draw 3-dimensional letter F. Then draw the orthographic projections for this letter.



Activity 5. Use the orthographic projections given below to draw an isometric of the object.



Activity 6. Consider the isometric perspective drawing shown. Discuss whether the drawing could represent a real object. Give reasons for your answer



Reading Pages 306-313
 Homework Pages 314-317 # 3, 5, 10