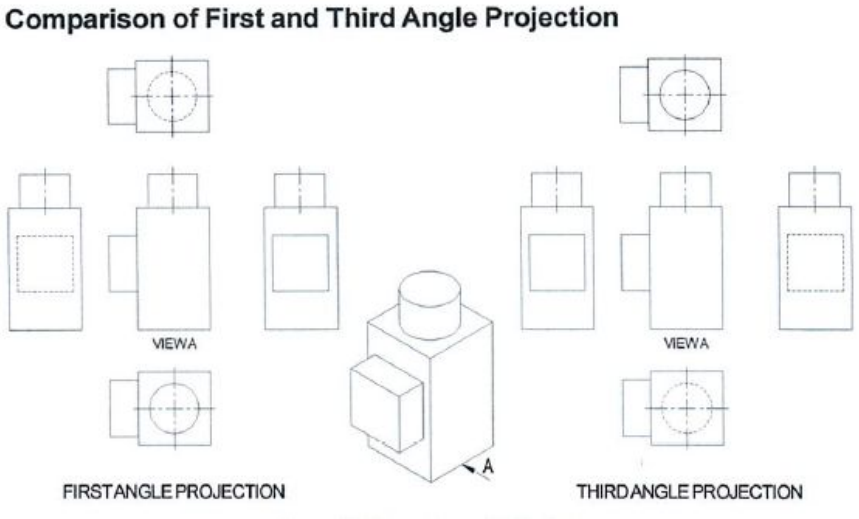
# Orthographic and Isometric Projections

Multiview Drawing

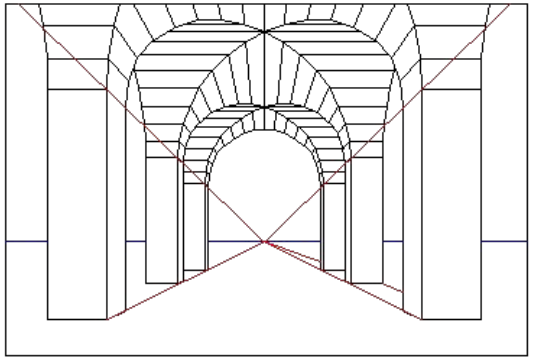
# What is a projection

Graphical **projection** is a protocol, used in technical **drawing**, by which an image of a three-dimensional object is **projected** onto a planar surface without the aid of numerical calculation.

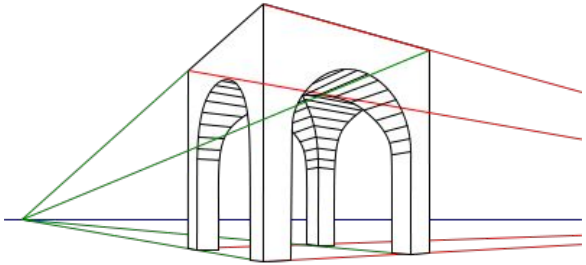


# We have used projection drawing before!

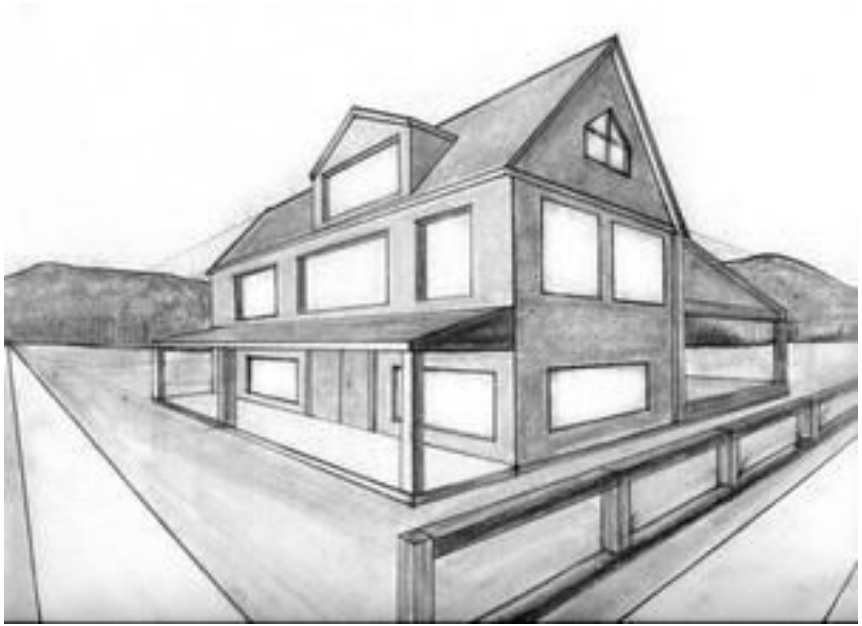
1 point perspective



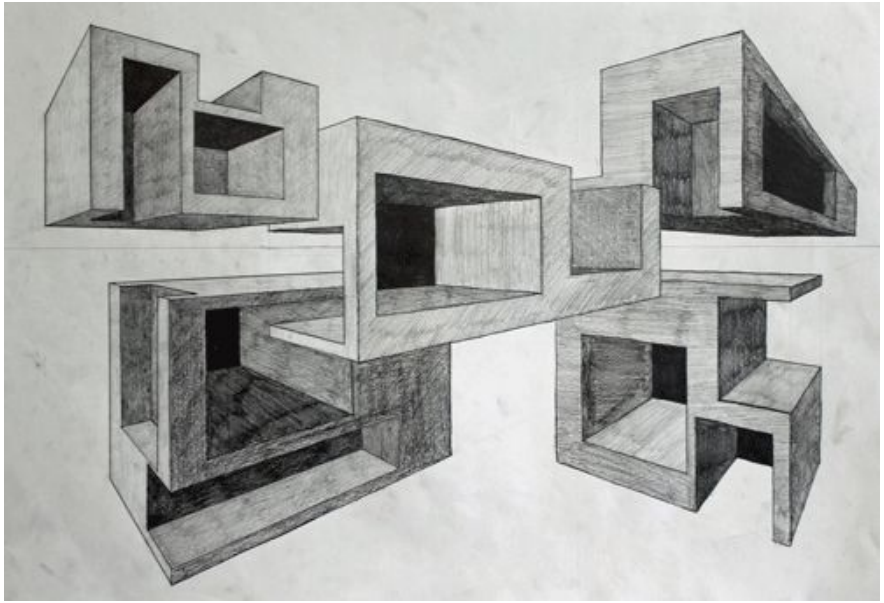
2 point perspective



1 and 2 point perspective are often used to represent a 3 dimensional space on a 2 dimensional surface



# Artists use projections in design to create a more dynamic space

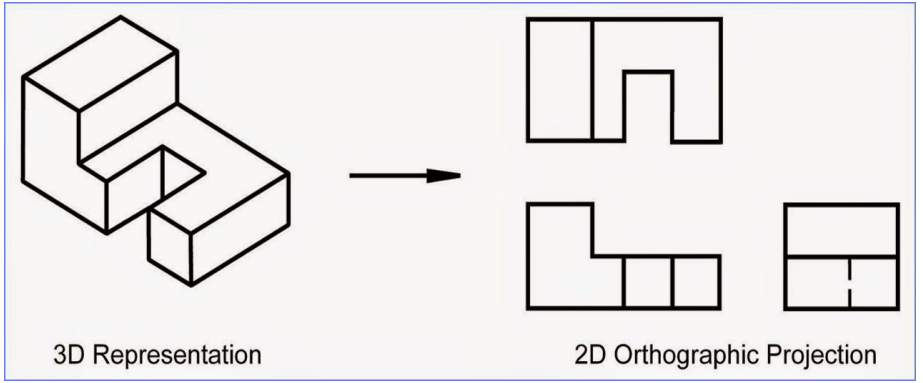


1 and 2 point perspective are not the only types of graphic projections

# Orthographic Projection

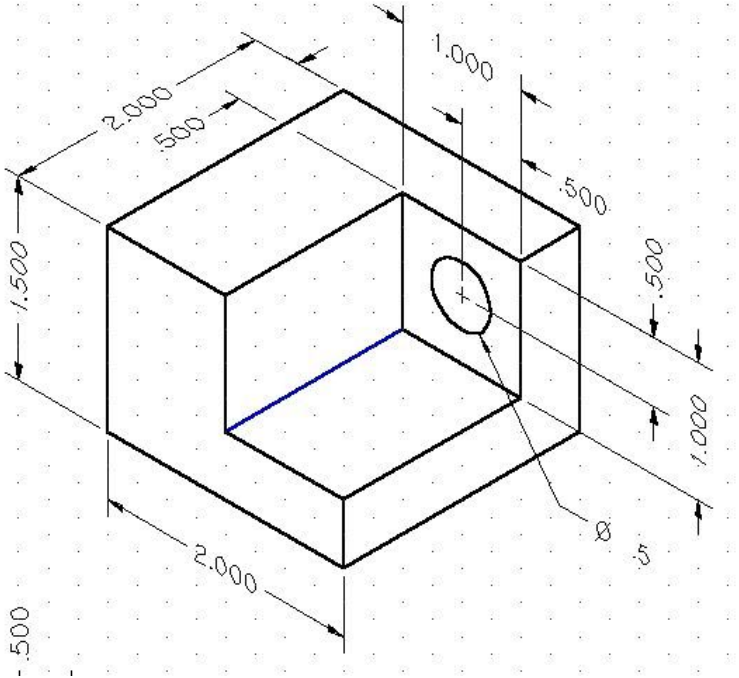
3 Dimensional object represented in 2 dimensions.

-Often in 3 views (top, front, side)

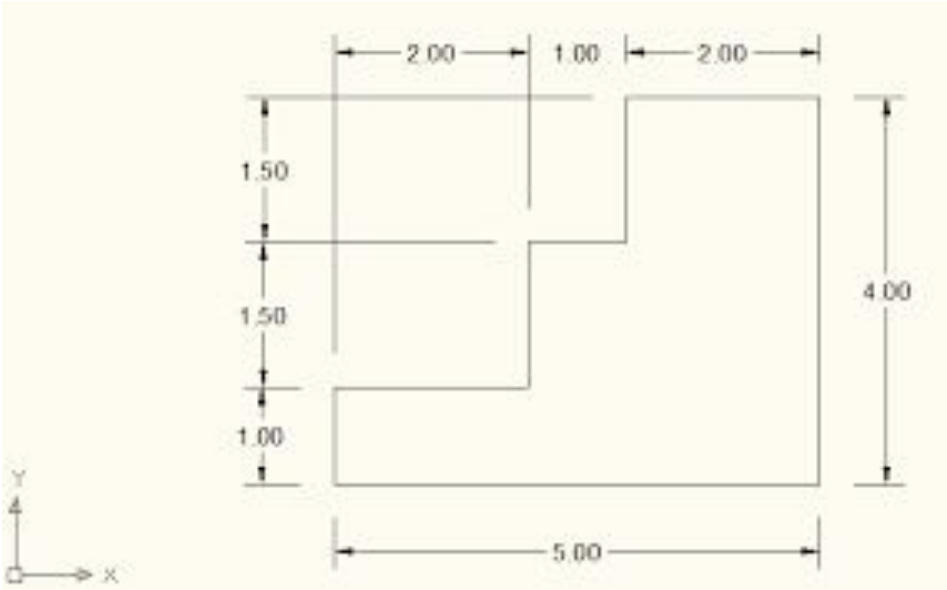


# Isometric Projection

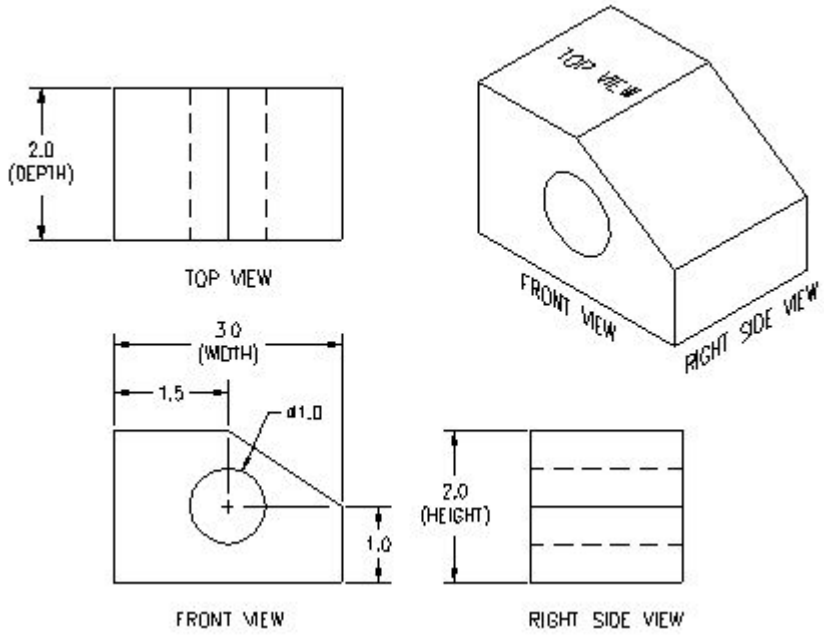
Isometric drawing is way of presenting designs/drawings in three dimensions. In order for a design to appear three dimensional, a 30 degree angle is applied to its sides.



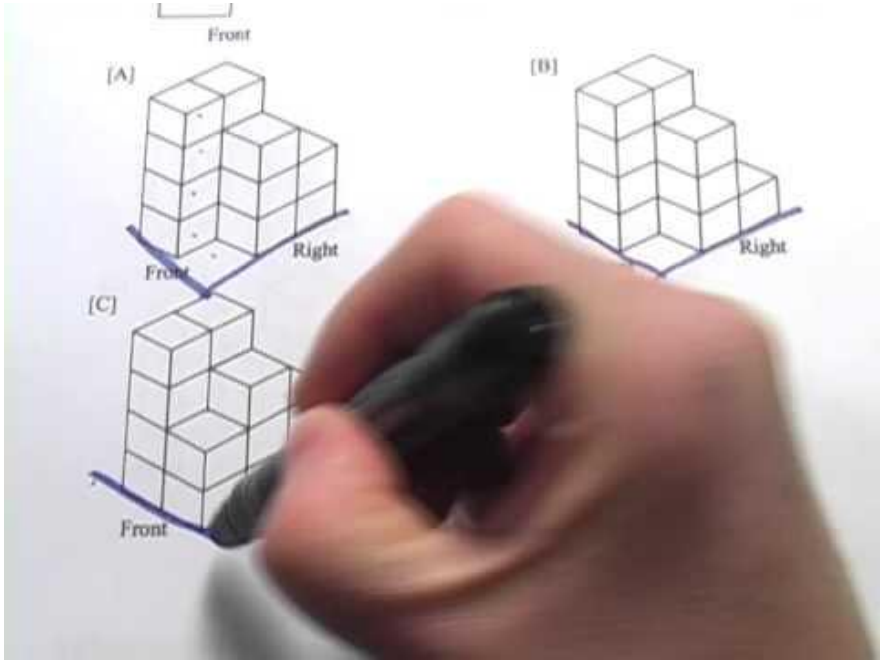
# Copy this Orthographic Projection View in Autocad



# Copy these Orthographic and Isometric views in Autocad



# Viewing an Isometric drawing in Orthographic Projection



Complete the attached worksheet to translate drawings between Isometric and orthographic projections: