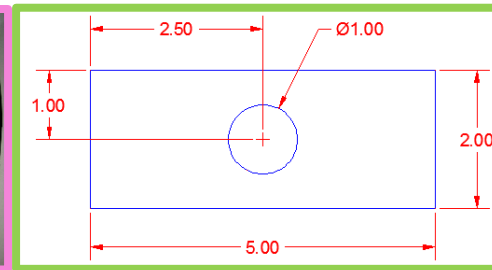
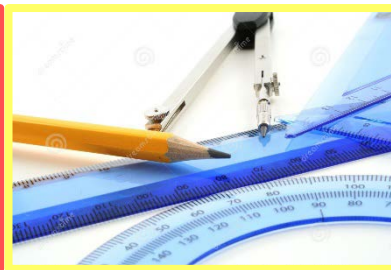
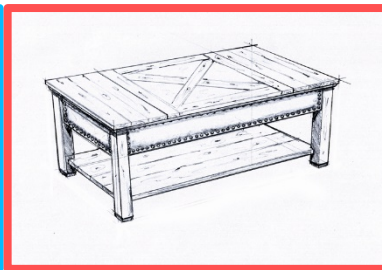
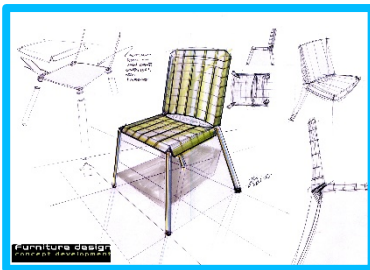




Industrial Technology



Communication Techniques

This presentation covers...

Drawing and sketching

Orthogonal drawing

Equipment used

Scaling

Setting out views

Dimensions

Letters and numbers



These are the key areas in each module

Occupational Health and Safety (OHS)

Materials, Tools and Techniques

Design

Links to Industry

Workplace Communication

Societal and Environmental Impact



Drawing and sketching

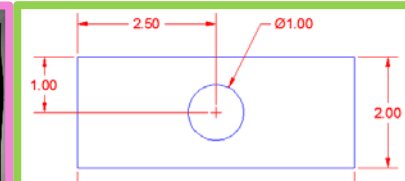
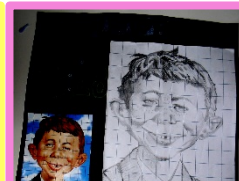
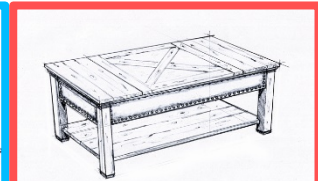
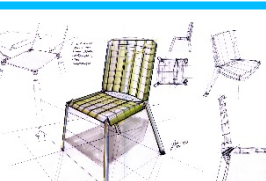
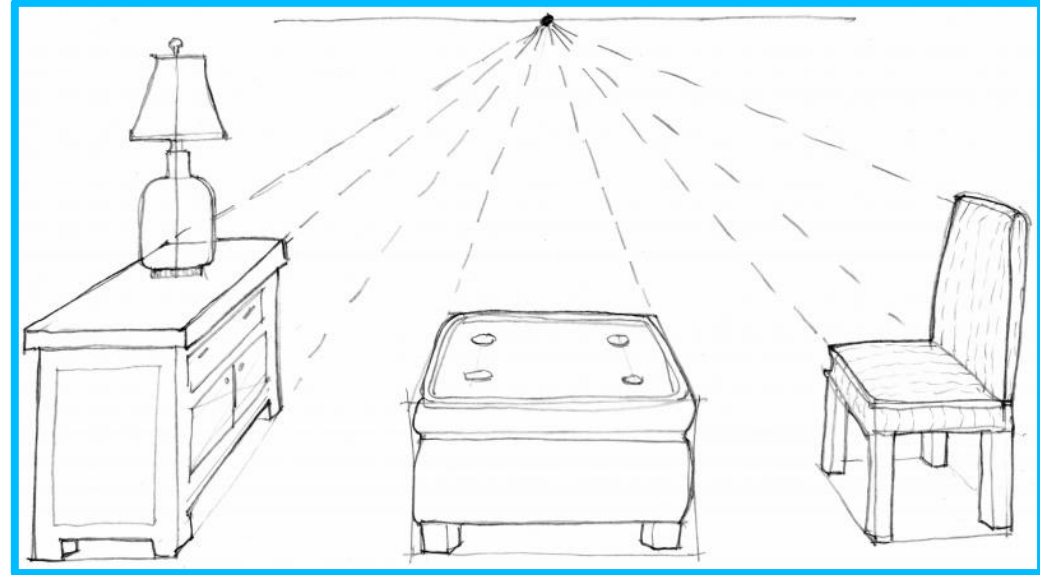
Methods and rules for laying out various views of a project, constructing your drawing, providing different dimensional points is like an international language.

All people concerned with the drawing can understand regardless of the country involved or the spoken language.

It is vital that these methods and rules are known and learnt.

AS 1100 is known as Australian Standards.

BS 308 is known as the United Kingdom.

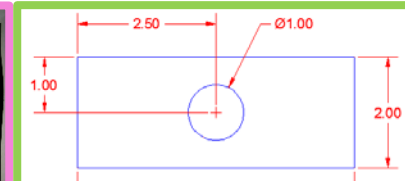
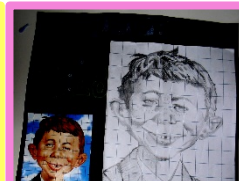
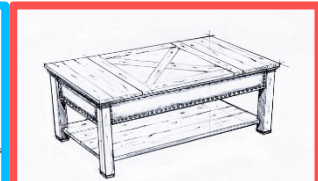
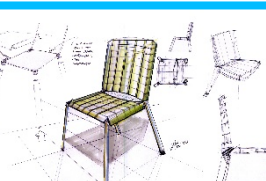
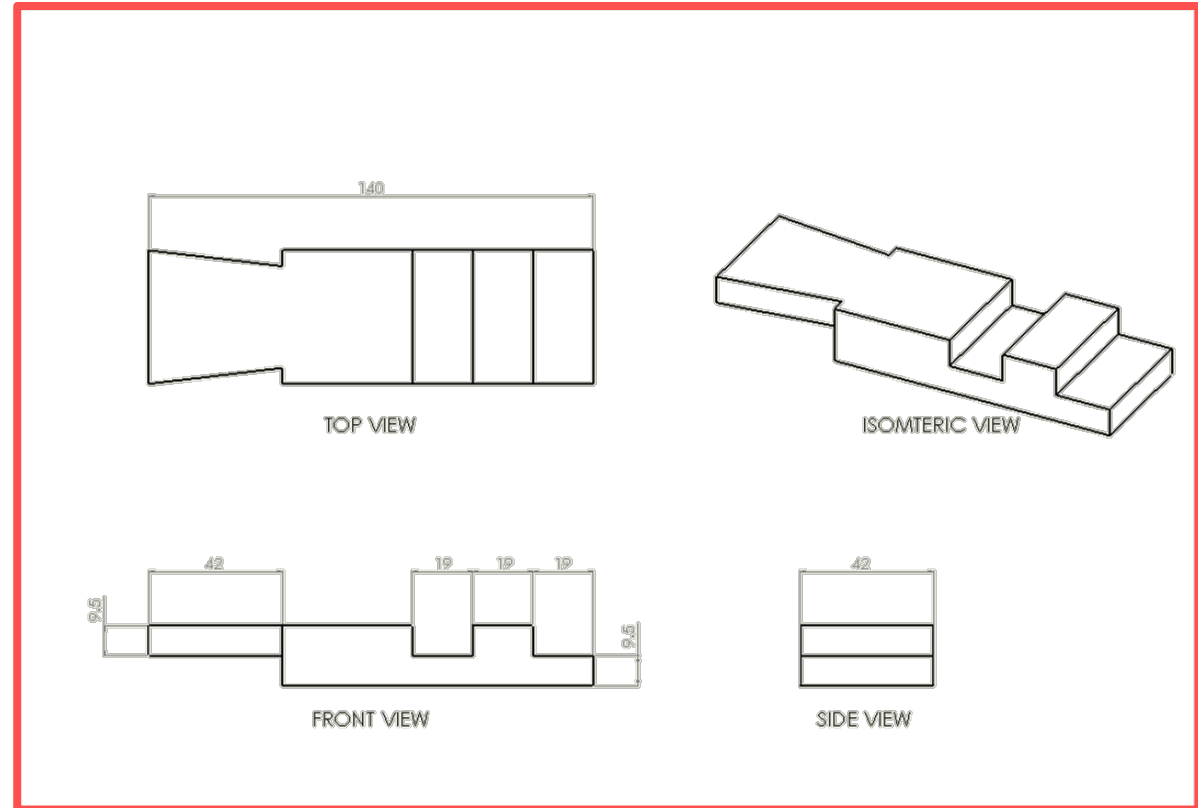


Orthogonal drawing

Also named orthographic plans, working drawings, engineering drawings or cabinet drawings.

They are systematically arranged views of the faces of the object, top, front and side view.

Every side of the object can be viewed when specific details are needed.



Equipment used

Drawing board

T square

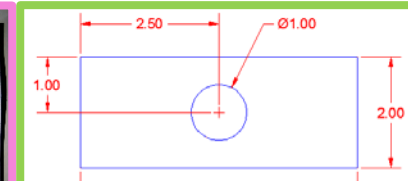
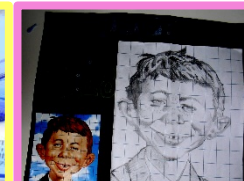
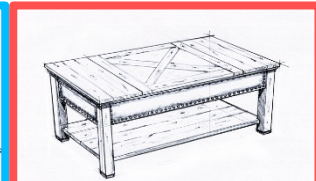
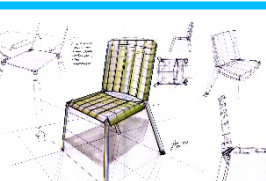
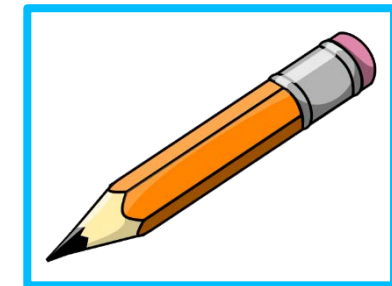
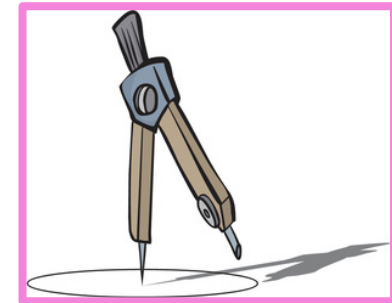
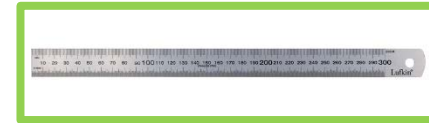
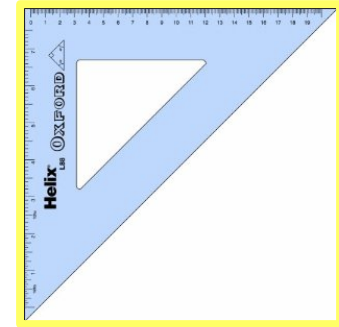
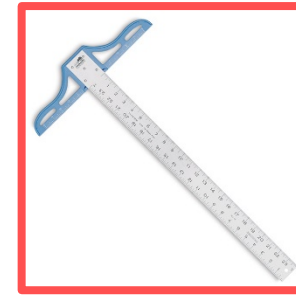
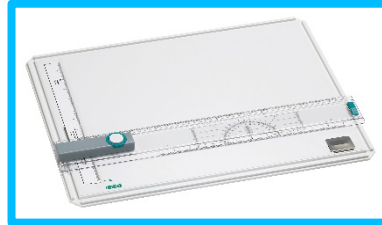
45° set square

Soft eraser

300mm rule

A pair of compasses

Pencil



Scaling

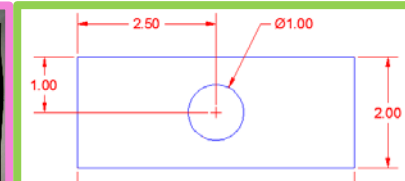
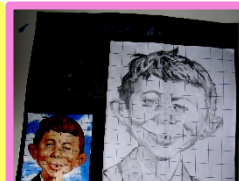
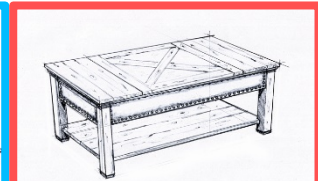
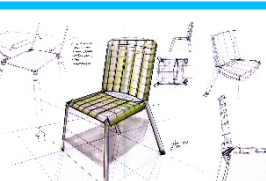
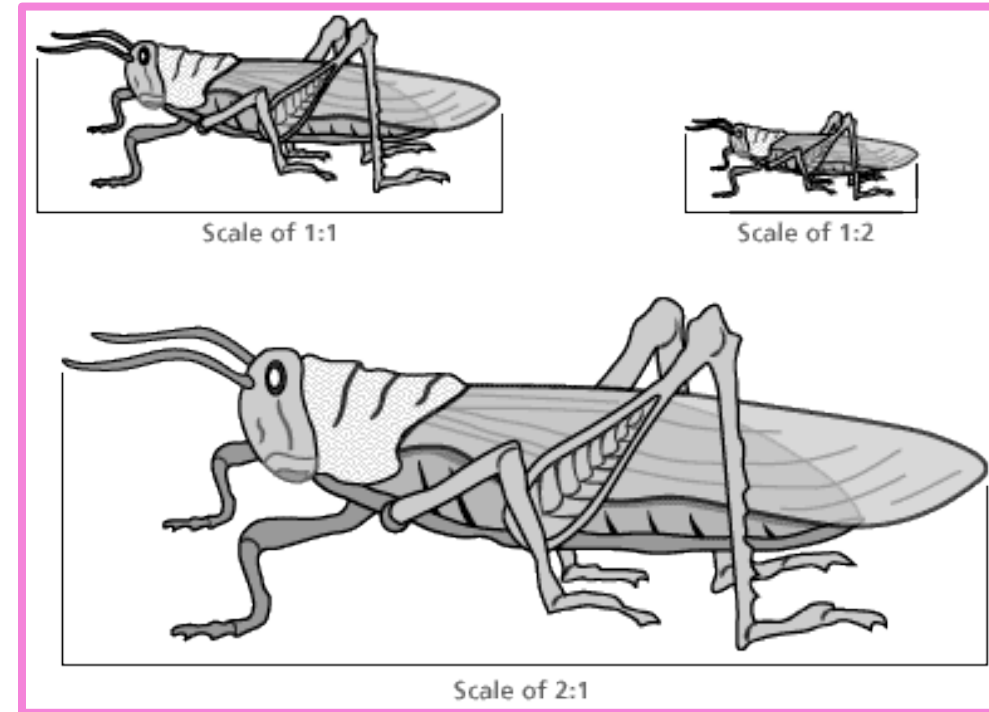
Most drawings need to be accurate and drawn to scale.

For example a mobile phone would need to be 2:1 the size on a drawing, whereas a car would need to be 1:10 of the size.

Every drawing needs the scale written on it so the reader knows how big it is.

Common scale sizes are 1:2, 1:2.5, 1:5, 1:10 making it easy to convert measurements.

1:7 would be difficult to convert measurements.



Dimensions

All orthogonal drawings must have dimensions so the object can be made.

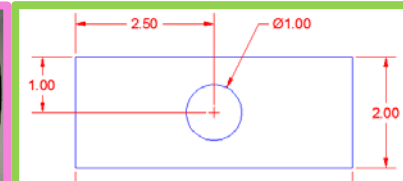
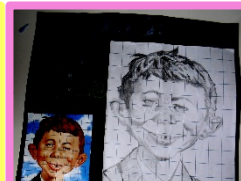
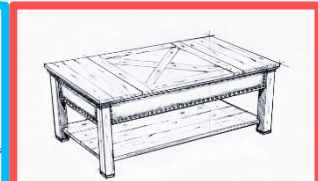
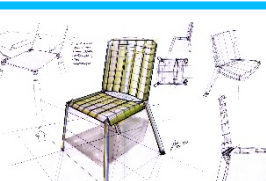
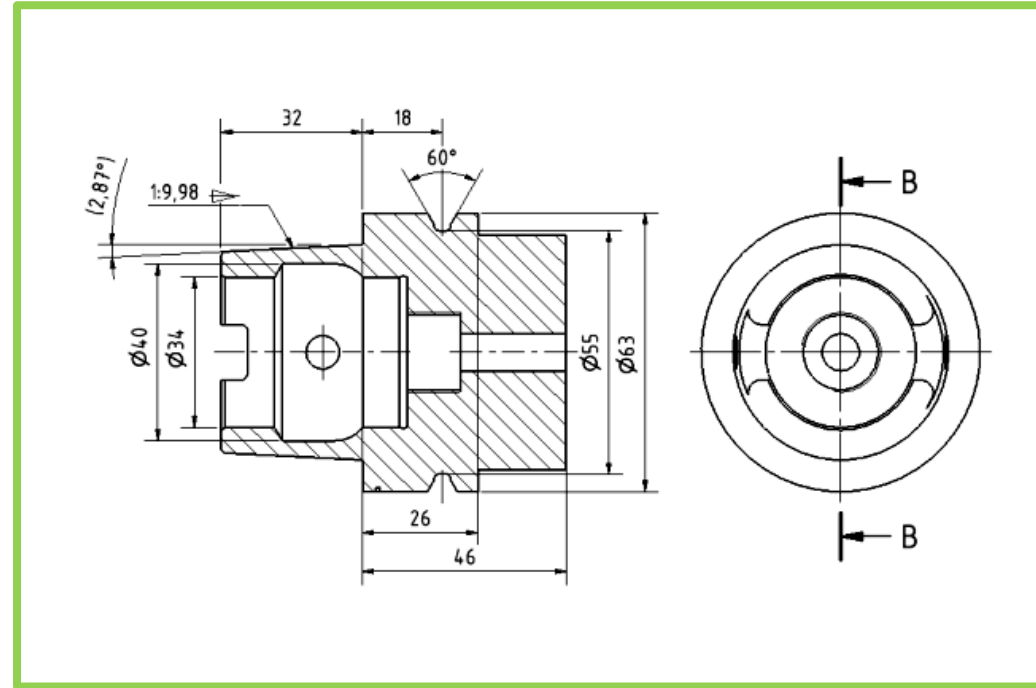
Dimensions need to be clear of the drawing to see the object clearly.

Don't repeat dimensions once is sufficient.

Always draw, label and dimension with a pencil, ink cannot be erased.

Always print full size measurements on the drawing.

Construction, outlines, dimension, projection, leader, hidden and centre lines are used in drawings.



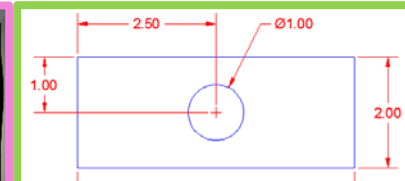
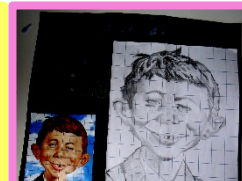
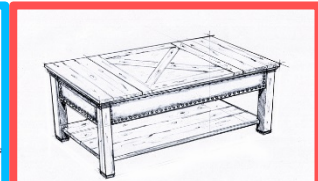
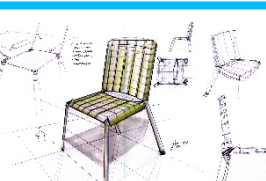
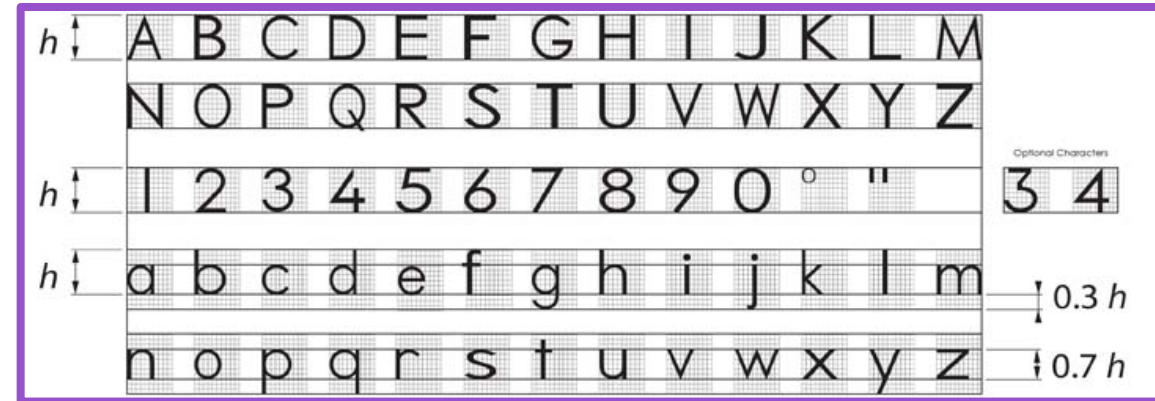
Letters and numbers

Always print in UPPERCASE letters.

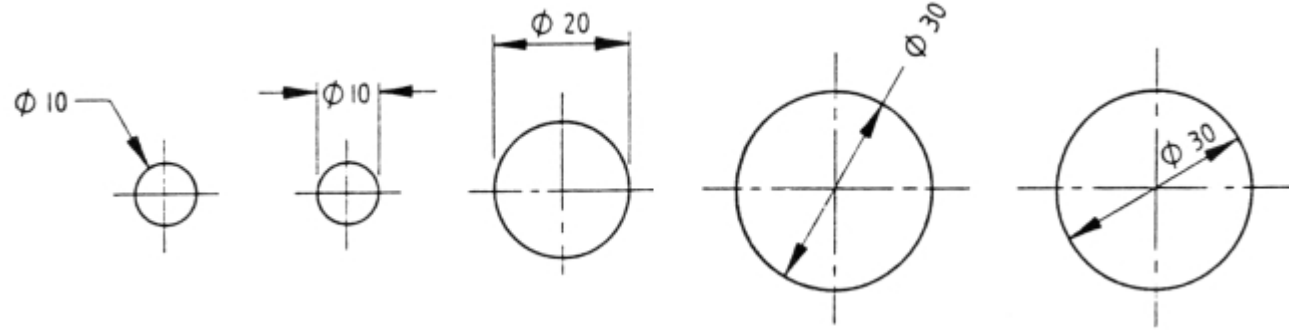
Titles and drawing numbers are usually 5mm high.

Subtitles, heading views and heading descriptions are 3.5mm high.

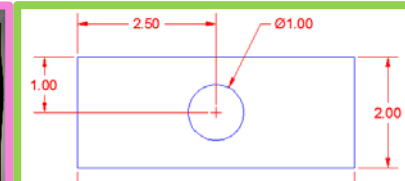
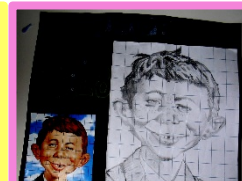
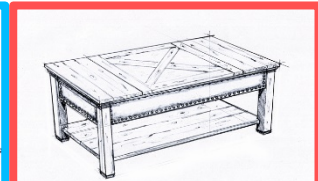
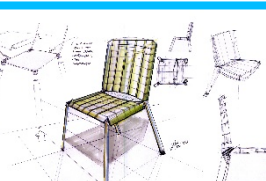
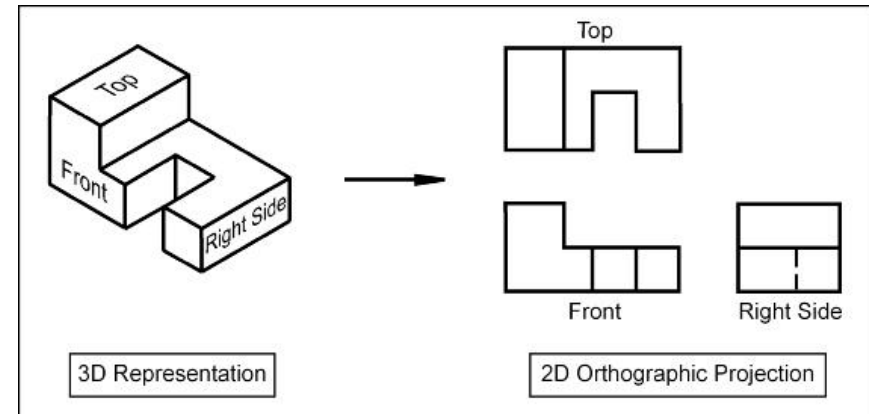
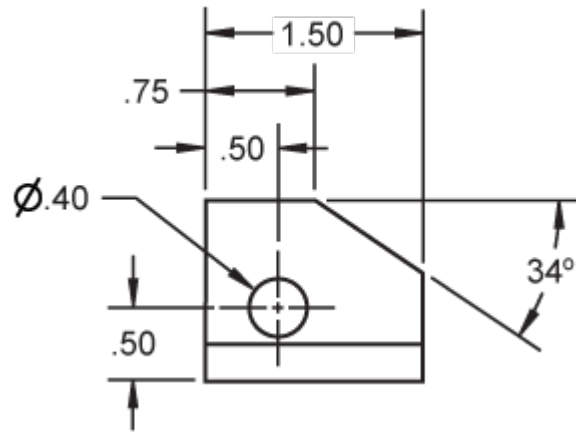
General notes, materials list and dimensions are 2.5mm high.



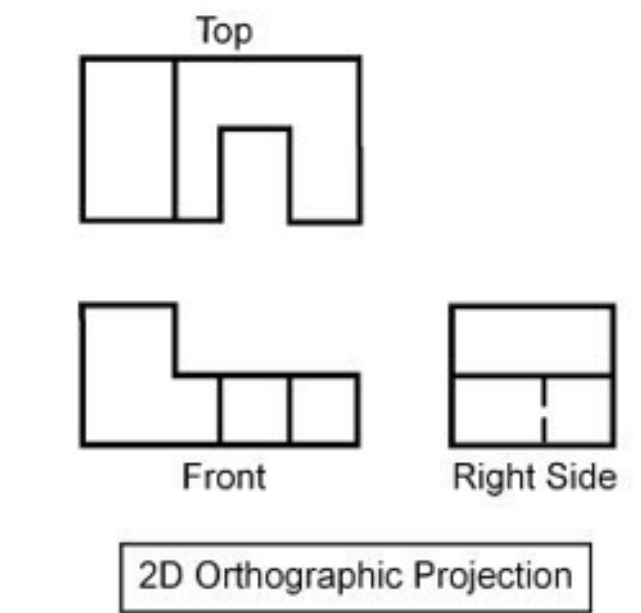
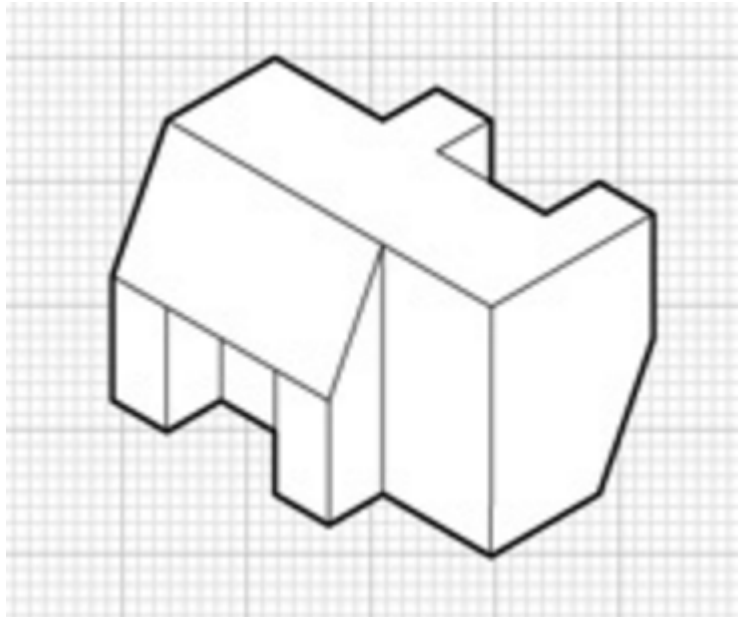
Symbols used drawings



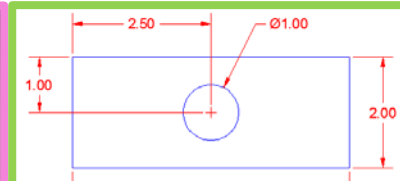
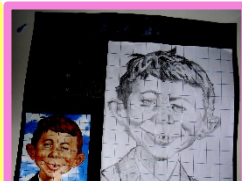
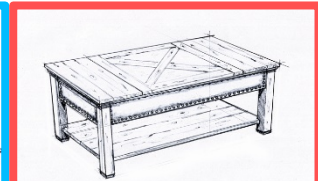
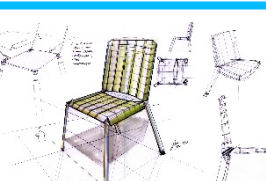
R



Draw an orthogonal drawing of this shape

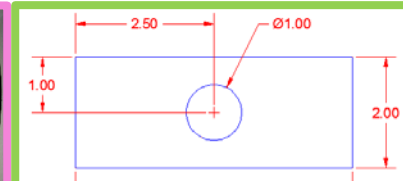
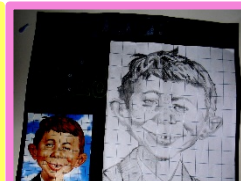
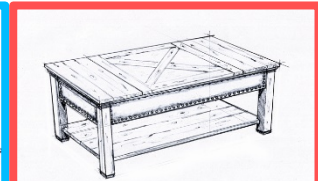
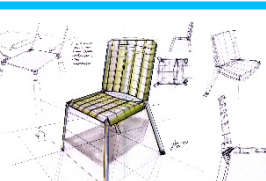


Example of what you should draw



Assessment task for the year

Task	Term	Week	Assessment Weighting
Manufactured Timber Products: Research Task	1	9	25%
Step Stool: Practical and Portfolio	2	4	25%
Group Project: Practical and Portfolio	4	4	25%
Final Examination	4	6	25%
Total			100%



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