

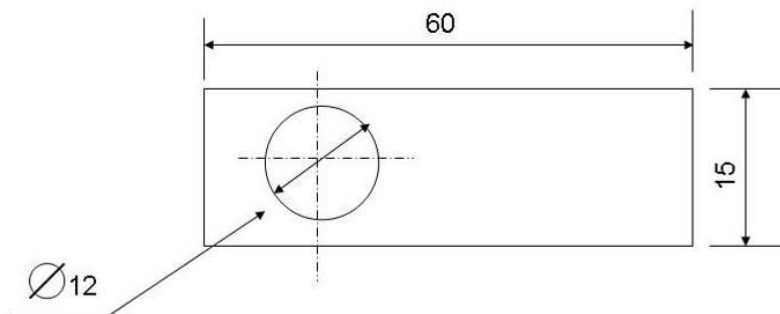
Adding Dimensions

Dimensions or measurements are added to the completed views on the orthographic. They usually show enough dimensions for the product to be manufactured. The key dimensions are always added. This enables anyone looking at the orthographic drawing, to work out the overall size of the object. More dimensions can be added if necessary. Dimensions are drawn on each of the views. The unique thing about this style of drawing is that they can be understood across the world no matter what language you speak.

Dimensioning Standards.

These are a set of rules that are followed from British Standards.

- Always use millimetres.
- Use the number only.
- Millimetres are the standard measurement used in British Standards.
- Put your numbers above the dimension line and in the middle.
- The words ALL DIMENSIONS IN MMS should appear on your drawing.



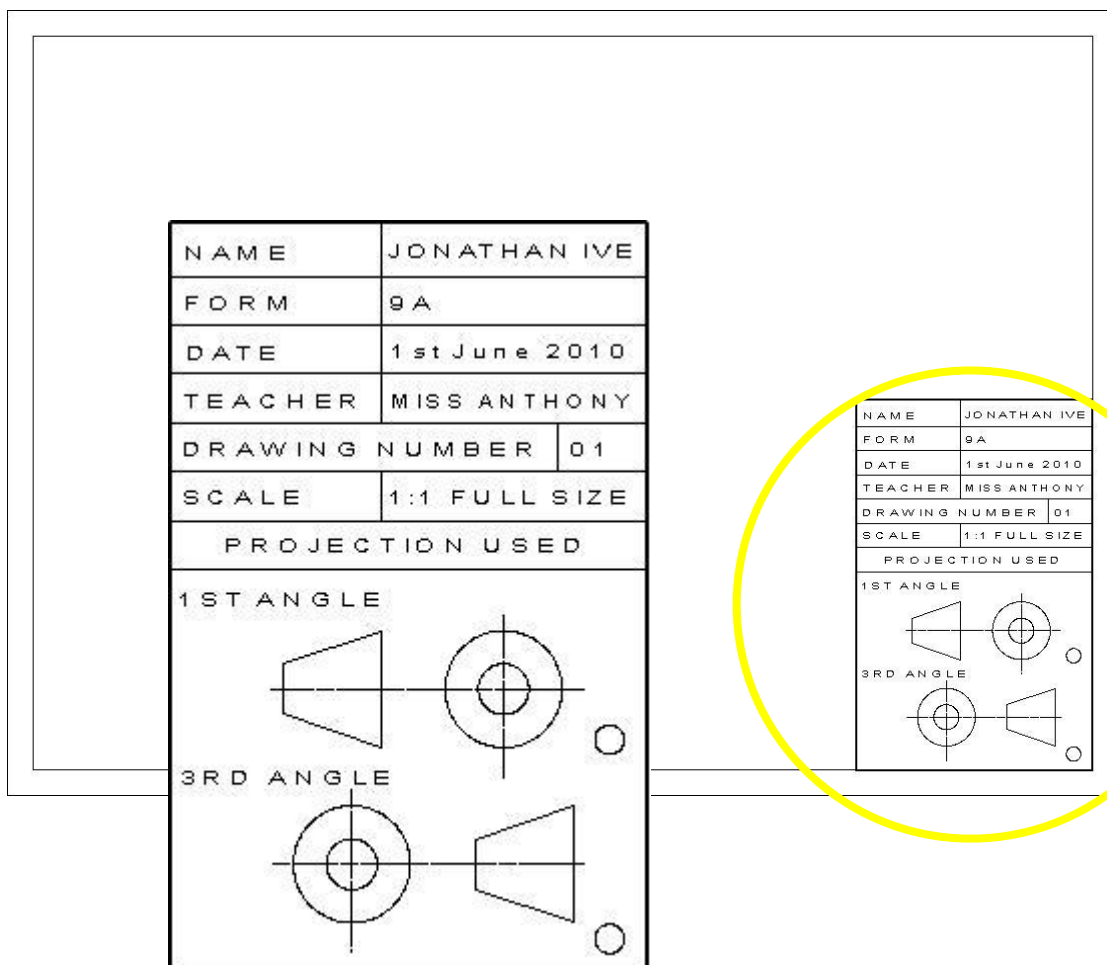
- All vertical dimensions are written on the left of the dimension line.
- When dimensioning a circle's diameter use this symbol.
- The Radius would read – R6.

Other details to go on your drawing.

- Sometimes your drawing will be too big for your paper, or the size of the product will be far too small to dimension.
- So, you will need to either draw your product bigger or smaller to fit on the page, or to read it easily.
- You can choose a **Scale** and write it on the drawing.
- A full size drawing will be 1:1, a half size drawing is 1:2 and a drawing shown at twice the size is 2:1.


Title Blocks

A Title Block is used as a format for any orthographic drawing. It shows the main details of the drawing and additional information about the product. It also includes your name, date, drawing number, the scale and type of projection used. You can save a lot of time if you draw one of these up using CAD software like 2D Design. This can be printed out or photocopied along with a border to save you time. Some CAD software adds the title block automatically.




What does a completed Orthographic drawing look like?

The drawing below shows an orthographic drawing of an iPod Nano. It follows the standards we have looked at in terms of its layout and the position of the views. These are labeled in block capitals. The dimensions are added in mms following the correct standards. The title block is used and has information about the scale, projection and who and when it was drawn. It is drawn in 3rd Angle Orthographic Projection.

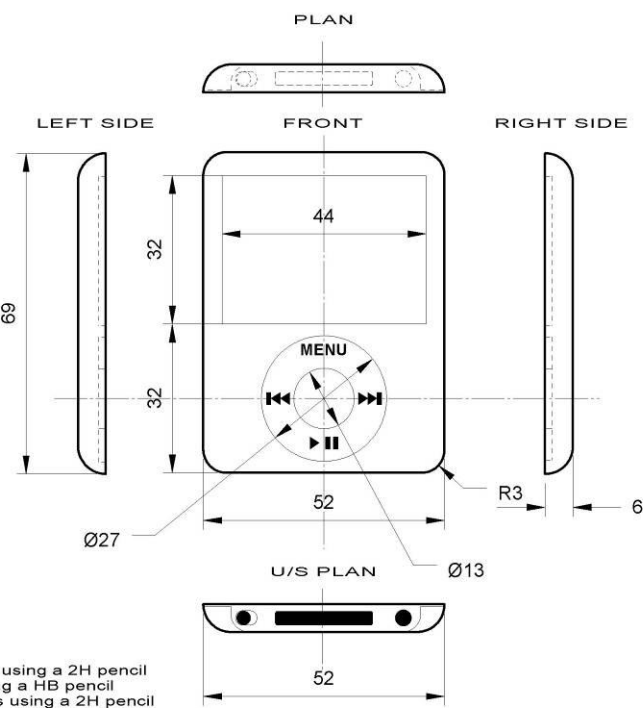


Apple

iPod Nano

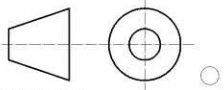
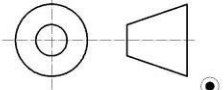


ALL DIMENSIONS IN mms



INSTRUCTIONS

1. Complete the Views using a 2H pencil
2. Label the Views using a HB pencil
3. Add Key Dimensions using a 2H pencil
4. Add Weighted Line to the Views
5. Fill in the Title Block
6. CHECK YOUR WORK

NAME	JONATHAN IVE
FORM	9A
DATE	1st June 2010
TEACHER	MR PETTIT
DRAWING NUMBER	01
SCALE	1:1 FULL SIZE
PROJECTION USED	
1ST ANGLE	
	
3RD ANGLE	
	

The drawing also includes a picture of the product that has been drawn and also the logo of the company. In this case Apple based in California, who manufacture the product. We should also acknowledge the designer Jonathan Ive.