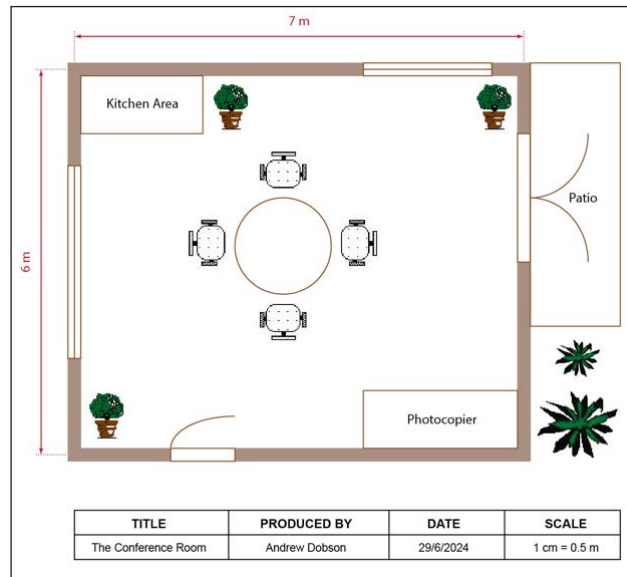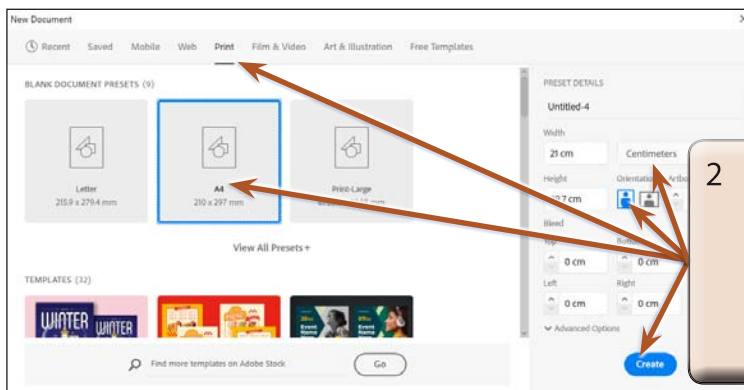# Creating Accurate Designs

Adobe Illustrator provides tools to create highly accurate designs, some of which in the past have required a dedicated and expensive Computer Aided Design program. To illustrate how to produce an accurate design, the following Conference Room diagram will be created.

Starting a New Document

1   Load Adobe Illustrator or close the current file and select NEW FILE from the WELCOME screen or NEW from the FILE menu to start a new document.
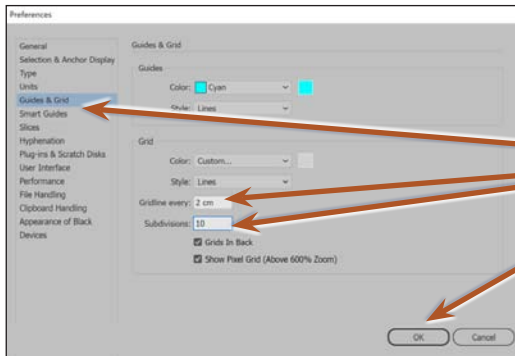

2   Select the PRINT profile followed by the A4 preset (or the paper size your printer uses). Set the UNITS to CENTIMETRES, the ORIENTATION to PORTRAIT and select CREATE.

3   Use the VIEW menu to turn on SHOW RULERS, SHOW GRID and SNAP TO GRID.

Setting the Scale

You should select an appropriate scale for a design such as this. A scale might be 1 cm = 1 m or 1 cm = 1 km, etc. To ensure that the conference room will fit neatly on the page, a scale of 1 cm = 0.5 m will be used and a more accurate grid will be applied.
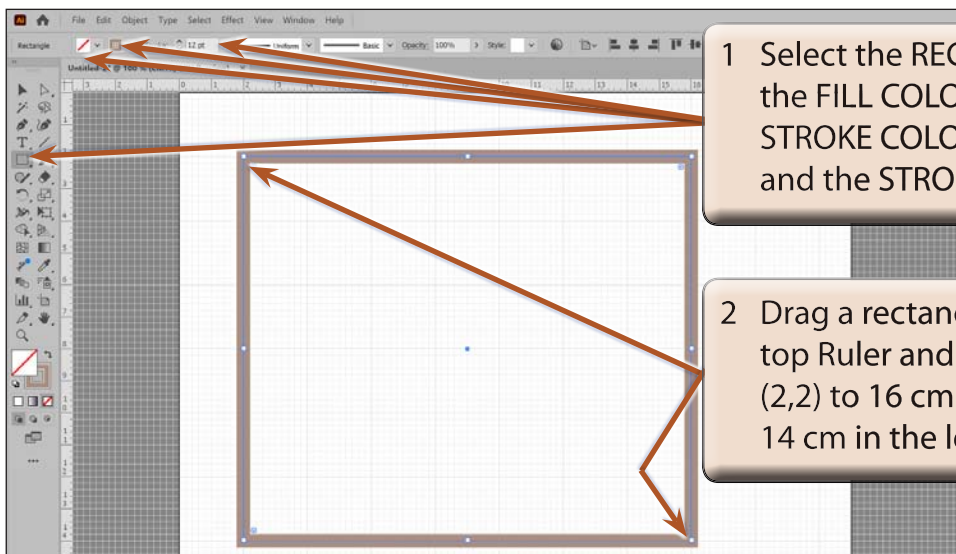
1   In the CONTROL or PROPERTIES panels click on the PREFERENCES button.

2 Select the GUIDES & GRID category, set the GRIDLINES EVERY to 2 cm, enter 10 in the SUBDIVISIONS box and select OK.

Entering the Walls of the Room

Thick shaded lines (0.4 cm thick) will be used to produce the outline of the room.

1 Select the RECTANGLE TOOL, set the FILL COLOUR to NONE, the STROKE COLOUR to LIGHT BROWN and the STROKE WEIGHT to 12 pt.
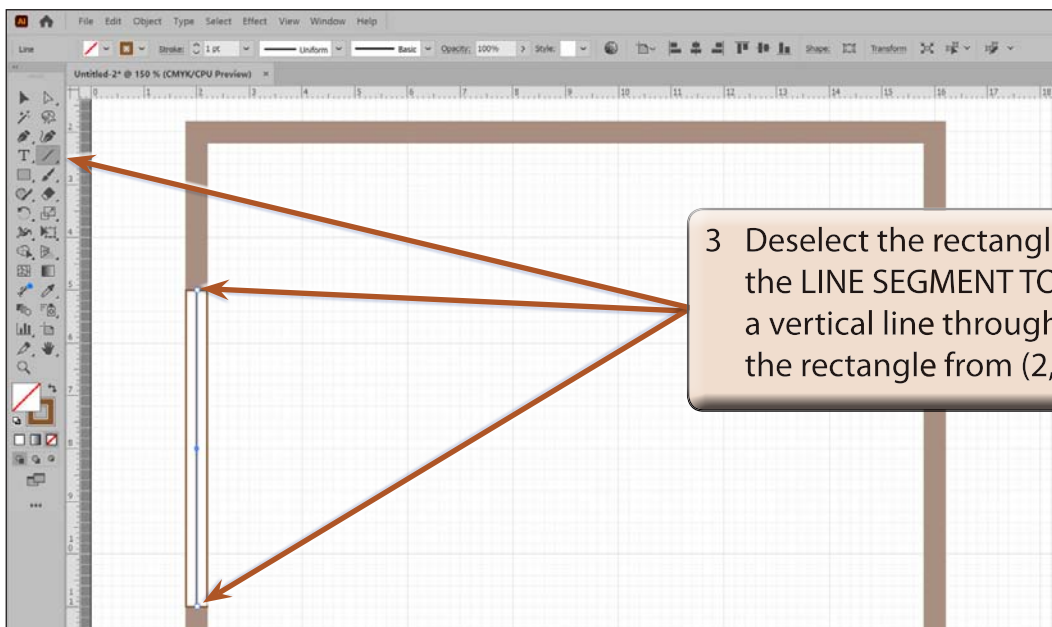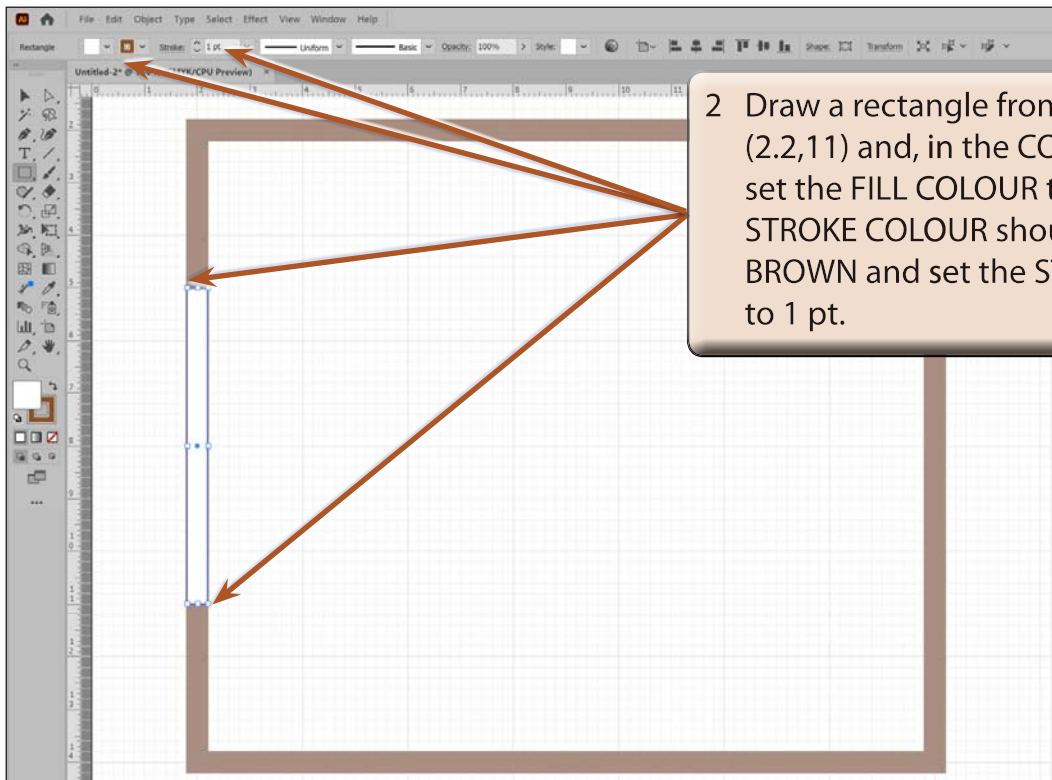
2 Drag a rectangle from 2 cm in the top Ruler and 2 cm in the left Ruler (2,2) to 16 cm in the top Ruler and 14 cm in the left Ruler (16,14).
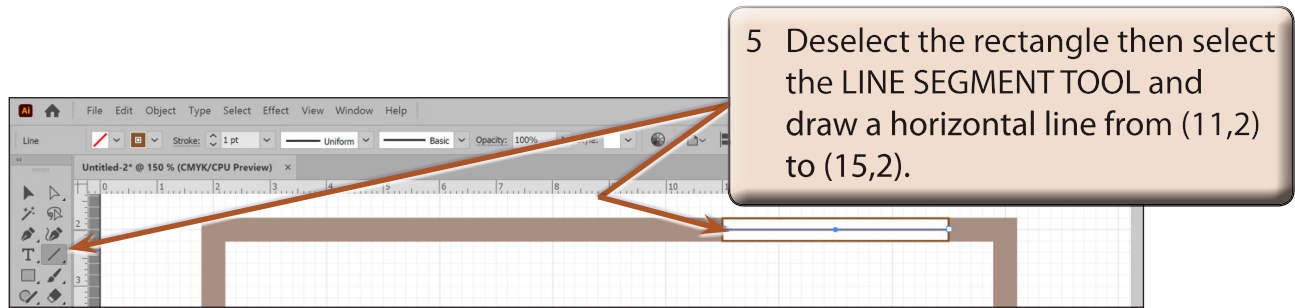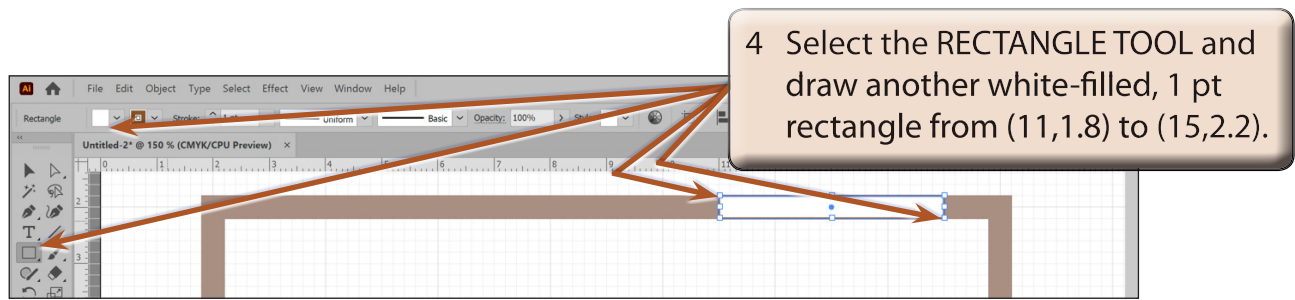
NOTE: This has drawn a rectangle that represents 7 m across (14 cm on the screen) and 6 m down (12 cm on the screen).

Adding the Windows

Windows are usually represented by a thin rectangle with a line through it.

1   Increase the VIEW to 150% using CTRL+ or COMMAND+ and scroll to the rectangle.

2 Draw a rectangle from (1.8,5) to (2.2,11) and, in the CONTROL panel, set the FILL COLOUR to WHITE, the STROKE COLOUR should still be BROWN and set the STROKE WEIGHT to 1 pt.

3 Deselect the rectangle then select the LINE SEGMENT TOOL and draw a vertical line through the centre of the rectangle from (2,5) to (2,11).

4 Select the RECTANGLE TOOL and draw another white-filled, 1 pt rectangle from (11,1.8) to (15,2.2).

5 Deselect the rectangle then select the LINE SEGMENT TOOL and draw a horizontal line from (11,2) to (15,2).
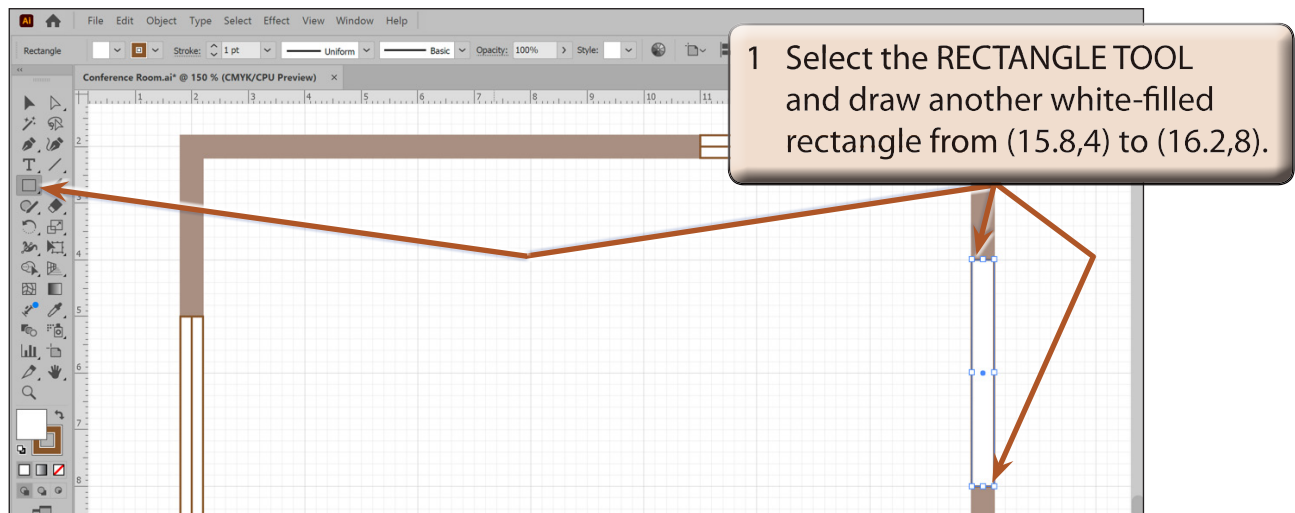
6 Save the document in your STORAGE folder as:

Conference Room

Adding the Doors

The doors will be represented by a rectangle with an arc attached to it. There are two sets of doors required, one set of double doors and one single door.

1 Select the RECTANGLE TOOL and draw another white-filled rectangle from (15.8,4) to (16.2,8).

2 Press SHIFT+CTRL+A or SHIFT+COMMAND+A to deselect the rectangle.