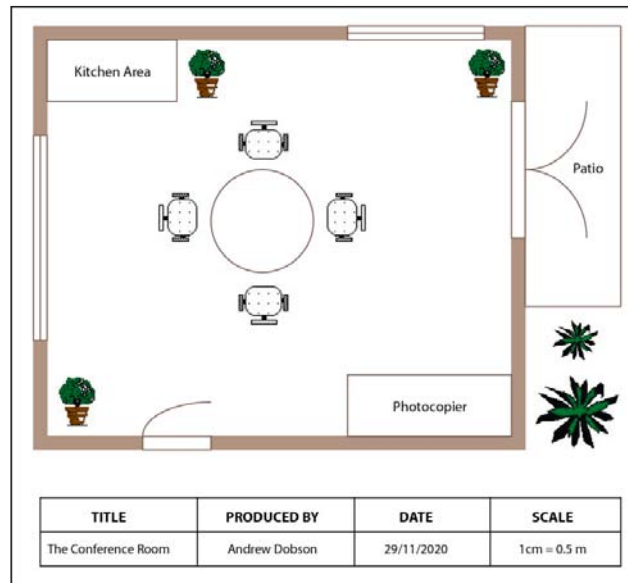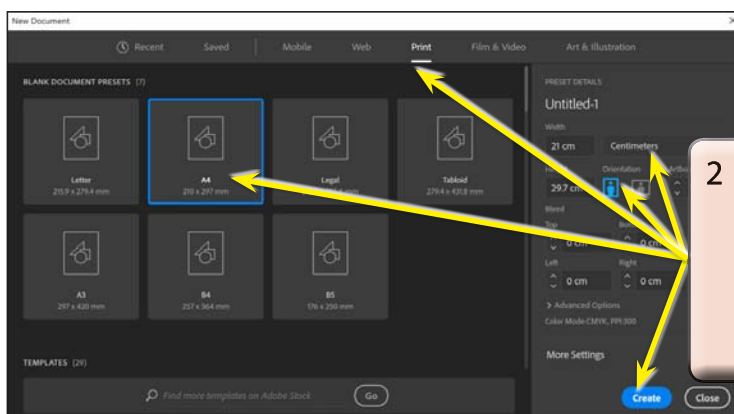# Creating Accurate Designs

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 CC or close the current file and select CREATE NEW from the WELCOME screen or NEW from the FILE menu to start a new document.
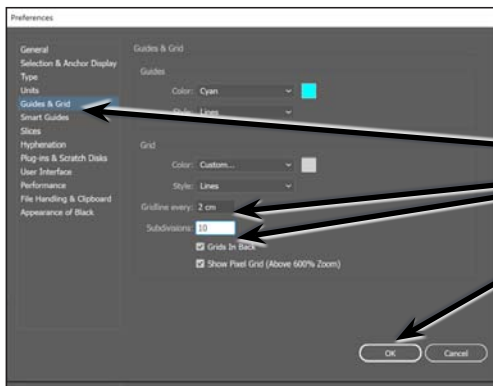

2 Select the PRINT profile followed by the A4 preset (or the paper size your printer uses), set the UNITS to CENTIMETRES, the ORIENTATION to PORTRAIT and select CREATE.

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.
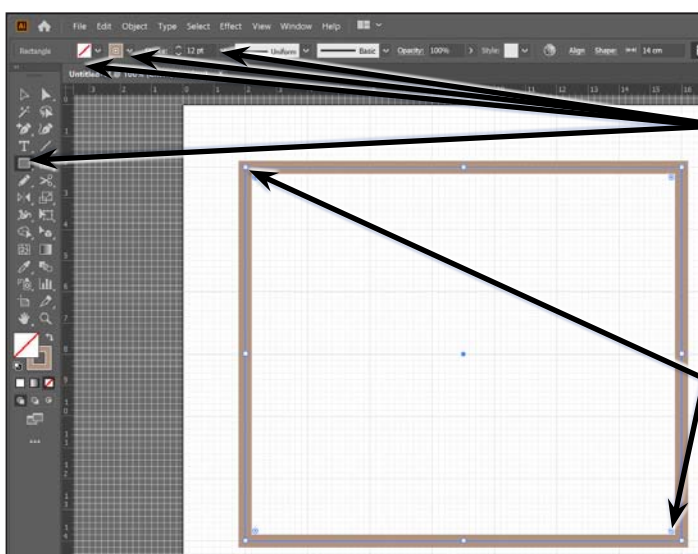
1   In the CONTROL or PROPERTIES panels click on the PREFERENCES button.

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

Entering the Walls of the Room

Thick shaded lines will be used to produce the outline of the room.

1   Set the view to 100%, select the RECTANGLE TOOL, set the FILL COLOUR to NONE, the STROKE COLOUR to LIGHT BROWN and the STROKE WEIGHT to 12 pt.
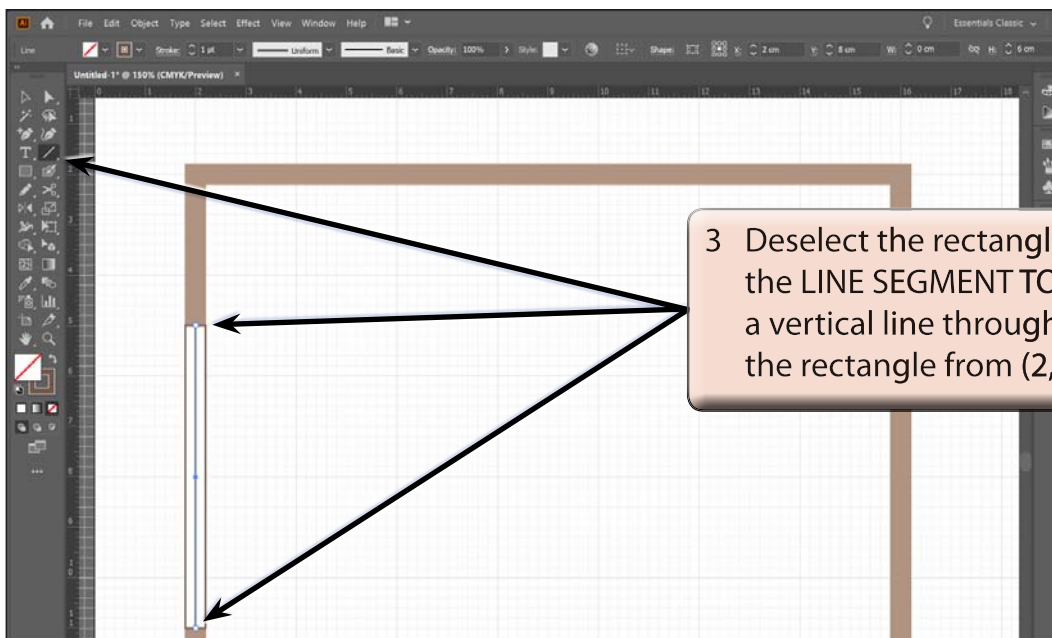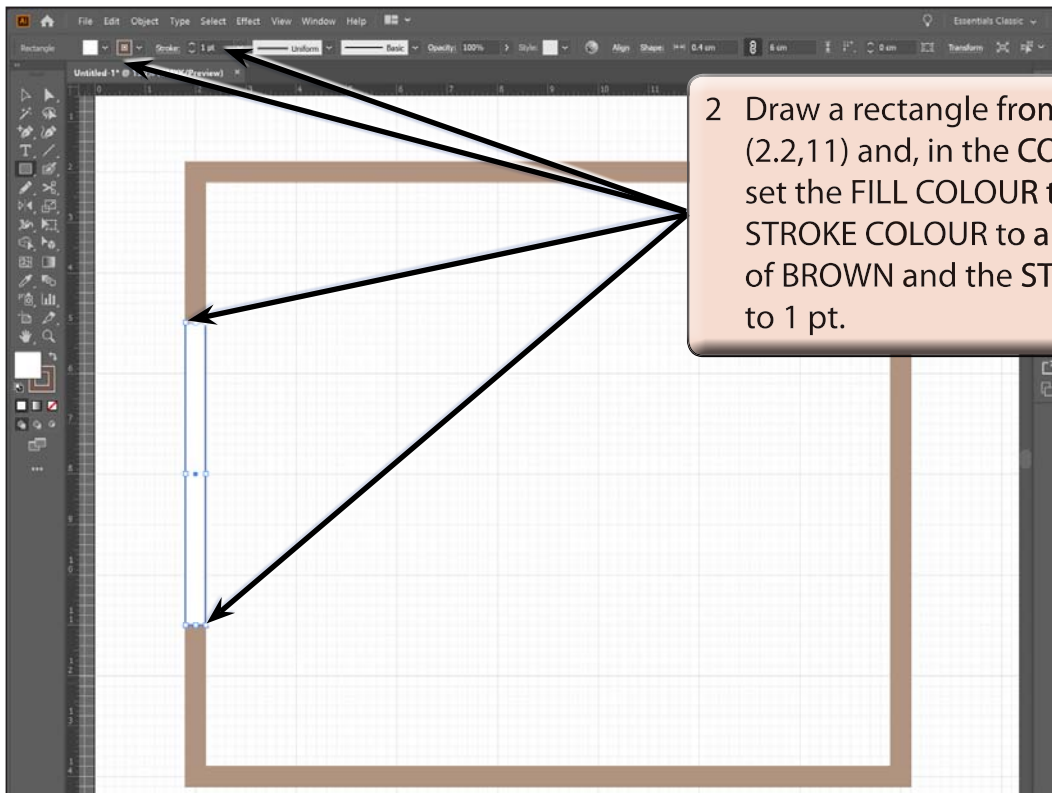
2   Drag a rectangle from 2 cm in the top Ruler and 2 cm in the left Ruler (2,2) to 16 cm in the top Ruler and 14 cm in the left Ruler (16,14).
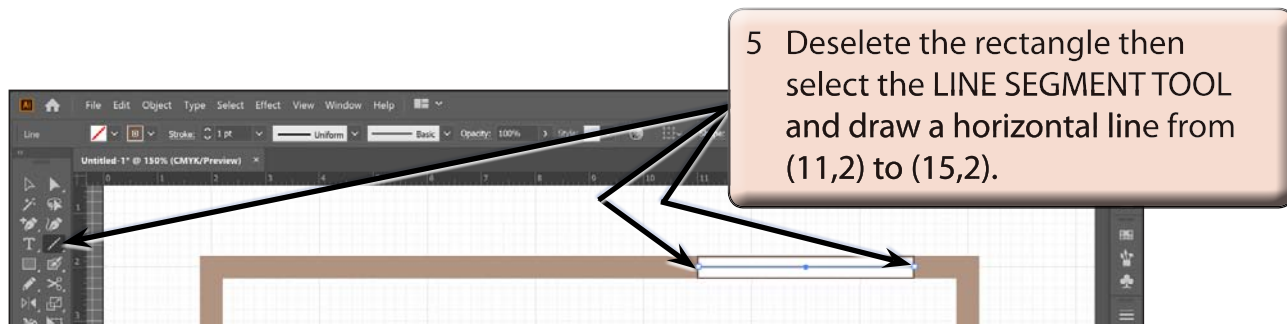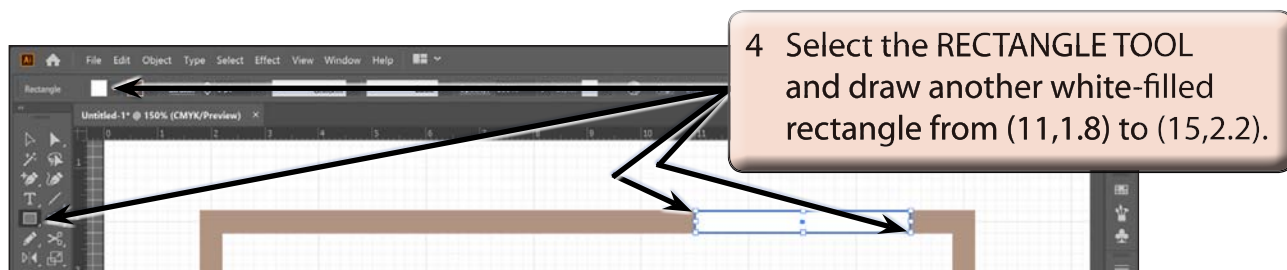
NOTE: This has drawn a rectangle that represents 7 m across (14 cm on the screen) and 6 m down (12 cm on the screen).

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 to a darker shade of BROWN and 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 rectangle from (11,1.8) to (15,2.2).

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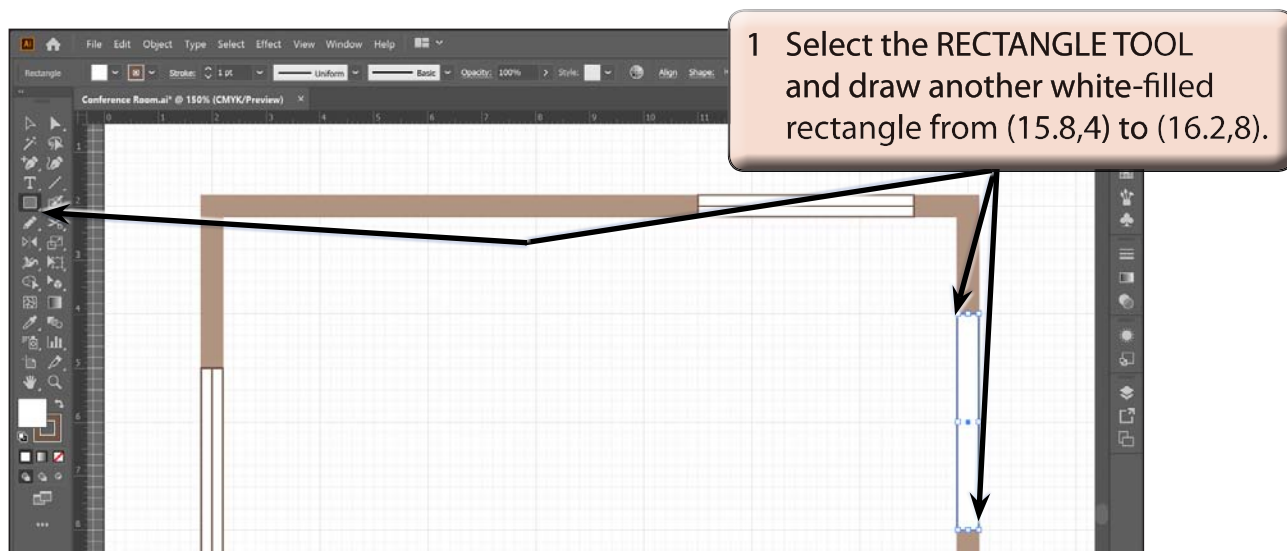
6 Save the document in your STORAGE folder as:

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.