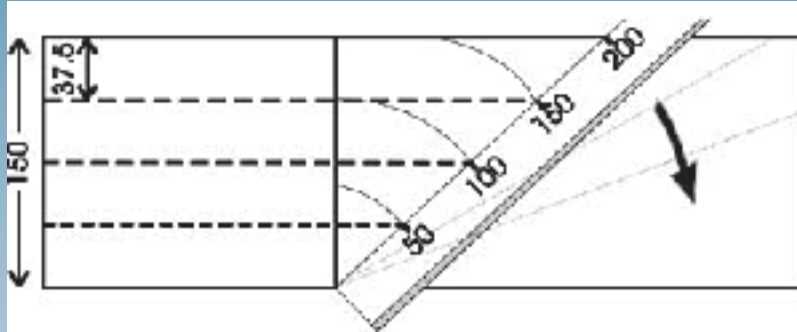


## HOW TO...

### DIVIDE 150mm INTO 4 EQUAL PARTS

Instead of dividing 150 by 4 and marking your timber every 37.5mm (which is a nuisance) angle your ruler or tape measure along the edge to 200mm (see diagram).

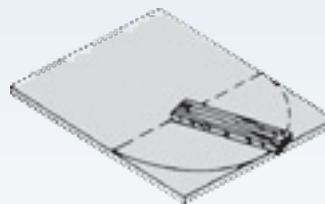


Now you can easily divide 200 by 4 and mark the timber every 50mm. Do this on both ends of the timber, rule along the marks and you will have a 150mm piece of timber perfectly divided into quarters without all the brain strain.

The width of the job can be almost anything, as long as your rule is long enough to angle to a number that is easy to divide. Some examples include, 4.5m - angle the rule/tape to 6m then divide by marking at 1m or 2m intervals or for 250mm - angle to 300mm and divide by 20mm or 30mm. What about the kids' assignments when they have to draw a table to put information in, or cutting out a piece of timber to slot into another piece, or working out where to put expansion joints into a new concrete driveway. What about measuring around the yard planing your garden bed or landscaping. This is a handy hint to remember.

### DRAW A CURVE USING SCRAP

Ever needed to cut a curve at the end of a piece of plywood or shelving and didn't have a big enough compass? Here's how.



You can use a simple piece of scrap material and two nails to mark for a curved cut on the end of a piece of plywood by driving one nail loosely into the board at the exact centre. Use a nail as a marker on the other end of the board. Or for a more professional job you can drill a hole in the end of the board and use a short piece of pencil instead of a nail.

## HOW TO...

### FINDING THE AREA OF A IRREGULAR SHAPE

Although not 100% accurate this method will give you a very close approximation. Simply divide the area up into square and rectangular shapes and then add the measurements of these areas together.

The areas left around the edges can then be approximated and added to the known areas.

To find the exact area of an irregular shape, first measure the outside with a flexible tape, the garden hose or a piece of string, and call this the circumference. Then calculate as though you were dealing with a circle.

To find the area of a circle we need the radius to complete the formula:

Area = 3.14 multiplied by R<sup>2</sup> (R= radius)

To find the radius of a circle when the circumference is given:

The formula is: Radius = circumference divided by 2 multiplied by 3.14 ( $r=c/2*3.14$ )

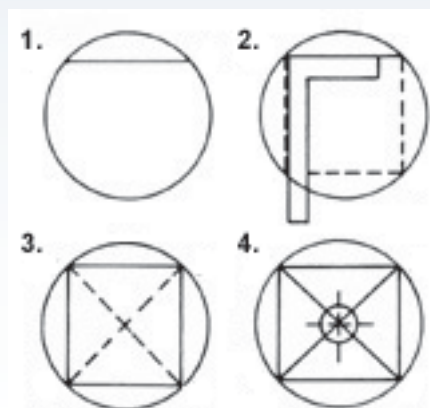
### FIND THE CENTRE OF A CIRCLE

Finding the centre of a circle is often necessary for various jobs around the house. Follow these simple steps to make it easy.

Draw a straight line across the circle at the top, this can be at any point in the upper section of the circle.

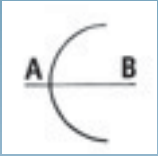
Use a carpenter's square to draw a square within the circle. Use your first line to create the square.

When the square is drawn within the circle, draw lines diagonally from one corner of the square to another. The exact centre of the circle is always at the point where these two diagonal lines cross.

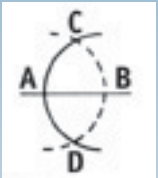


## FIND THE CENTRE OF A LINE

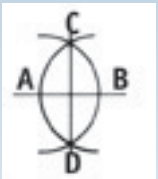
Sometimes you may need to find the exact centre of a line you have drawn on a plan, here's a simple and accurate method you can employ using a compass.



Set the end of the compass at one end (B) of the line and draw an arc at any point beyond the halfway point.



Move the compass to the opposite end of the line (A) and, retaining the exact compass setting, draw an arc from that point.



Now draw a straight line from the points where the two arcs cross at the top (C) to the point where the arcs cross at the bottom (D). The centre of the line is at the exact point where this line crosses the line you are measuring.