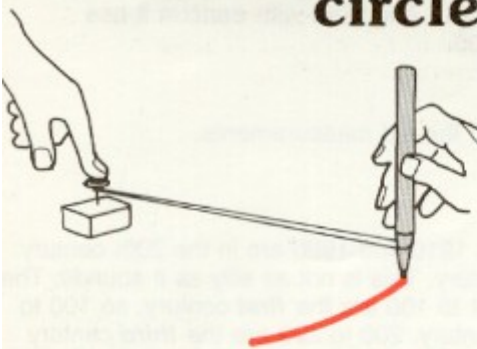


This extract from the maths dictionary included on the Mothers' Companion flashdrive¹ gives a simple explanation of π . Notice that it explains that π is “about 3.142”. Lansberge's achievement was calculating π more accurately than had previously been done. His result, as he knew well, was however still only “about” the figure he came up with. This is still the case today. π can be calculated *more* accurately but never *completely* accurately.



circle

If you are very careful you can draw a circle with a loop of thread, a drawing pin and a pencil. The drawing pin marks the centre of the circle – make sure it doesn't stick into the table! Press it into something which doesn't matter.

Hold the drawing pin still with one finger. Keep the thread tight and mark the paper all the way round with the pencil. It is easier to use compasses to draw circles. Look up **compasses** if you are not sure how to use them. A complete turn in a circle is measured as 360 degrees (360°).

Here is a list of useful words to do with circles which you can look up: **circumference, radius, diameter, semi-circle, quadrant, arc, chord, segment, sector, tangent.**

circumference

The circumference is the distance all the way round a circle. It is the boundary line.

The circumference of a circle is always just over three times the length of its diameter. We use the Greek letter π (pi) to stand for this amount. It is about 3.142 or $3\frac{1}{7}$.

The diameter (d) $\times \pi =$ the circumference of the circle.
The radius (r) $\times 2 \times \pi =$ the circumference of the circle.
To save time we say:

$$\text{The circumference of a circle} = \pi d \text{ or } 2\pi r$$

The area of a circle is $\pi \times r \times r$

To save time we say:

$$\text{The area of a circle} = \pi r^2$$

If you want to know more, look up **circles**.

¹ Available here: <https://motherscompanion.weebly.com/>