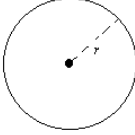
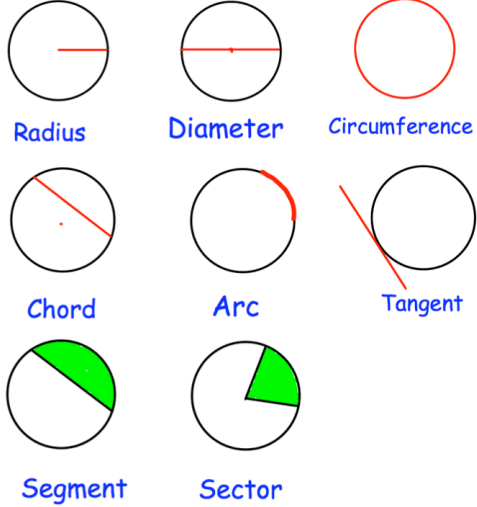
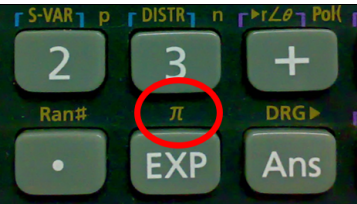
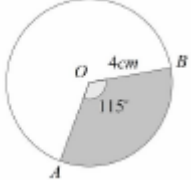


## KS3 Unit 52 Circles

Topic/Skill	Definition/Tips	Example
1. Circle	A circle is the locus of all points equidistant from a central point.	
2. Parts of a Circle	<p><b>Radius</b> – the <b>distance</b> from the <b>centre</b> of a circle to the <b>edge</b></p> <p><b>Diameter</b> – the total <b>distance</b> across the <b>width</b> of a circle <b>through the centre</b>.</p> <p><b>Circumference</b> – the <b>total distance</b> around the <b>outside</b> of a circle</p> <p><b>Chord</b> – a <b>straight line</b> whose <b>end points lie on a circle</b></p> <p><b>Tangent</b> – a <b>straight line</b> which <b>touches</b> a circle at exactly <b>one point</b></p> <p><b>Arc</b> – a <b>part of the circumference</b> of a circle</p> <p><b>Sector</b> – the <b>region</b> of a circle enclosed by <b>two radii</b> and their intercepted <b>arc</b></p> <p><b>Segment</b> – the <b>region</b> bounded by a <b>chord</b> and the <b>arc</b> created by the chord</p>	<p style="text-align: center; color: green;">Parts of a Circle</p> 
3. Area of a Circle	$A = \pi r^2$ which means 'pi x radius squared'.	If the radius was 5cm, then: $A = \pi \times 5^2 = 78.5cm^2$
4. Circumference of a Circle	$C = \pi d$ which means 'pi x diameter'	If the radius was 5cm, then: $C = \pi \times 10 = 31.4cm$
5. $\pi$ ('pi')	Pi is the circumference of a circle divided by the diameter.  $\pi \approx 3.14$	
6. Arc Length of a Sector	The arc length is part of the circumference.  Take the <b>angle</b> given as a <b>fraction over 360°</b> and <b>multiply</b> by the <b>circumference</b> .	$\text{Arc Length} = \frac{115}{360} \times \pi \times 8 = 8.03cm$ 
7. Area of a Sector	The area of a sector is part of the total area.  Take the <b>angle</b> given as a <b>fraction over 360°</b> and <b>multiply</b> by the <b>area</b> .	$\text{Area} = \frac{115}{360} \times \pi \times 4^2 = 16.1cm^2$ 