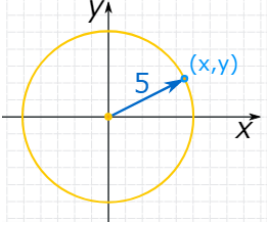
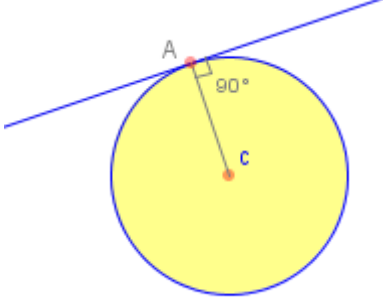
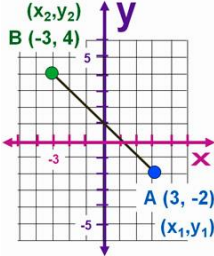
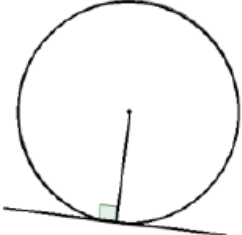
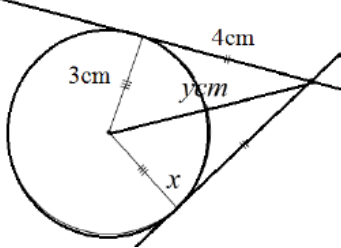


Topic/Skill	Definition/Tips	Example
1. Equation of a Circle	The equation of a <b>circle, centre (0,0), radius r</b> , is:  $x^2 + y^2 = r^2$	 $x^2 + y^2 = 25$
2. Tangent	A straight <b>line</b> that <b>touches</b> a circle at <b>exactly one point</b> , never entering the circle's interior.  A <b>radius</b> is <b>perpendicular</b> to a <b>tangent</b> at the <b>point of contact</b> .	
3. Gradient	<b>Gradient</b> is another word for <b>slope</b> .  $G = \frac{\text{Rise}}{\text{Run}} = \frac{\text{Change in } y}{\text{Change in } x} = \frac{y_2 - y_1}{x_2 - x_1}$	 <p>We need to find the <b>GRADIENT</b> between A at (3,-2) and B at (-3,4)</p> $m = \frac{y_2 - y_1}{x_2 - x_1}$ $m = \frac{4 - (-2)}{-3 - 3}$ $m = 6 / -6 = -1 \checkmark$
4. Circle Theorem 5	A <b>tangent is perpendicular to the radius at the point of contact</b> .  	 <p><math>y = 5\text{cm}</math> (Pythagoras' Theorem)</p>