

## 2.4 Equation of the Circle

At the end of this outcome I should...		I can do	Revised
2.4.1	know that the equation of the circle centre $(a,b)$ and radius $r$ is $(x-a)^2 + (y-b)^2 = r^2$	<input type="checkbox"/>	<input type="checkbox"/>
2.4.2	know that $x^2 + y^2 + 2gx + 2fy + c = 0$ represents a circle centre $(-g, -f)$ and radius $\sqrt{g^2 + f^2 - c}$ , provided $(g^2 + f^2 - c) > 0$	<input type="checkbox"/>	<input type="checkbox"/>
2.4.3	determine the equation of a circle	<input type="checkbox"/>	<input type="checkbox"/>
2.4.4	solve problems with the intersection of a line and a circle, and a tangent to a circle  The line $x - 3y = k$ is tangent to $x^2 + y^2 - 6x + 8y + 15 = 0$ . Find two possible values of $k$ . **	<input type="checkbox"/>	<input type="checkbox"/>
2.4.5	determine whether two circles touch each other	<input type="checkbox"/>	<input type="checkbox"/>

N.B. \*\* indicates Level A/B content