|  |  |  |
| --- | --- | --- |
| **Topic/Skill**  | **Definition/Tips****Topic: Equation of a Circle and Tangent**  | **Example** |
| 1. Equation of a Circle | The equation of a **circle**, **centre (0,0),** **radius r**, is:$$x^{2}+y^{2}=r^{2}$$ | $$x^{2}+y^{2}=25$$ |
| 2. Tangent | A straight **line** that **touches** a circle at **exactly one point**, never entering the circle’s interior.A **radius** is **perpendicular** to a **tangent** at the **point of contact**. | Image result |
| 3. Gradient | **Gradient** is another word for **slope**.$$G= \frac{Rise}{Run}= \frac{Change in y}{Change in x}= \frac{y\_{2}-y\_{1}}{x\_{2}-x\_{1}}$$ | Image result for gradient maths example |
| 4. Circle Theorem 5 | **A tangent is perpendicular to the radius at the point of contact.** | $y=5cm $(Pythagoras’ Theorem) |

**Knowledge Organiser**