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| **Topic/Skill** | **Definition/Tips** | **Example**  **Topic: Circle Theorems** |
| Circle Theorem 1 | **Angles in a semi-circle have a right angle at the circumference.** |  |
| Circle Theorem 2 | **Opposite angles in a cyclic quadrilateral add up to 180°.** |  |
| Circle Theorem 3 | **The angle at the centre is twice the angle at the circumference.** |  |
| Circle Theorem 4 | **Angles in the same segment are equal.** |  |
| Circle Theorem 5 | **A tangent is perpendicular to the radius at the point of contact.** | (Pythagoras’ Theorem) |
| Circle Theorem 6 | **Tangents from an external point at equal in length.** |  |
| Circle Theorem 7 | **Alternate Segment Theorem** |  |

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| **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: |  |
| 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**. | Image result for gradient maths example |
| 4. Circle Theorem 5 | **A tangent is perpendicular to the radius at the point of contact.** | (Pythagoras’ Theorem) |

**Knowledge Organiser**