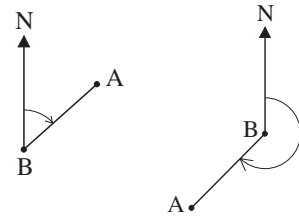


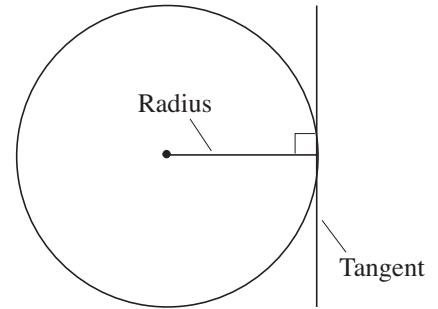
Angles, Circles and Tangents

Essential information

- A **bearing** gives the direction or position of something, or the direction of movement, relative to a fixed point. Bearings are of the form of angles, expressed in degrees as three-digit numbers; they are measured from north in a clockwise direction. For example, 060° , 210° .



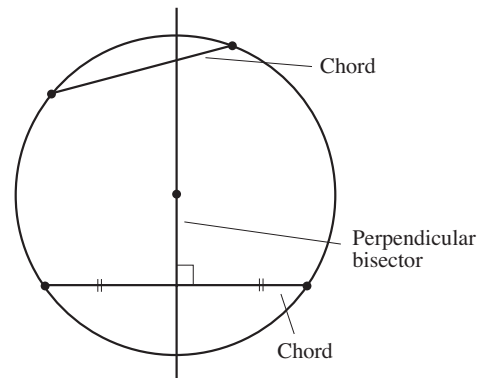
- A **tangent** is a line that touches only one point on the circumference of a circle. A tangent is always perpendicular to the radius of the circle.
- The **point of tangency** is the point where a tangent touches the circumference of a circle.



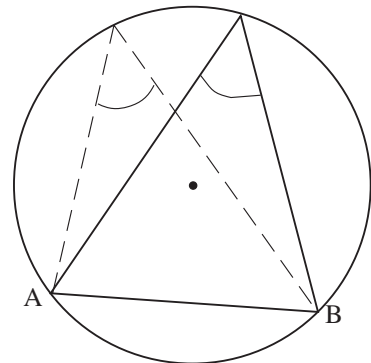
- A **chord** is a line joining any two points on the circle.

The **perpendicular bisector** is a second line that divides the first line in half and is at right angles to it.

The perpendicular bisector of a chord always passes through the centre of the circle.



- An **angle subtended by a chord** in a circle is shown in the diagram opposite. Angles subtended at the circumference on the same side of a circle by a chord are equal.



- An **angle subtended at the centre** of a circle by an arc is twice the angle subtended at a point on the circumference (alternate segment theorem).

