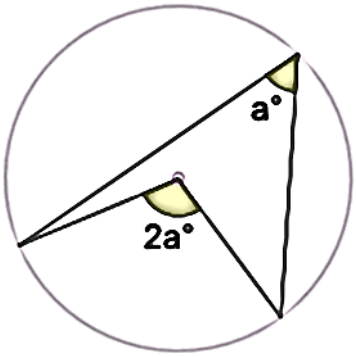
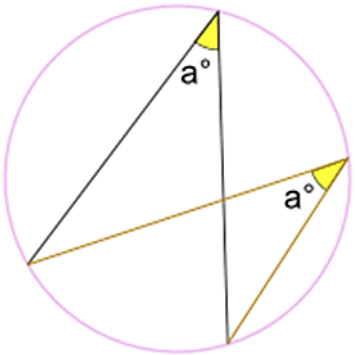
MYP MATHEMATICS

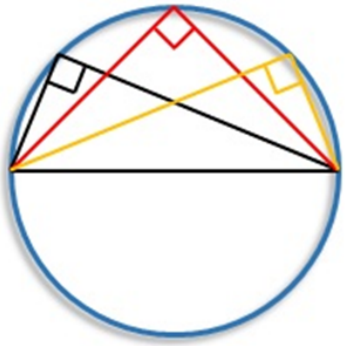
CIRCLE THEOREMS



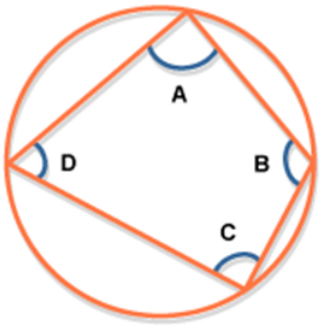
An angle on the circumference is half of the angle at the centre which is subtended by the same arc.



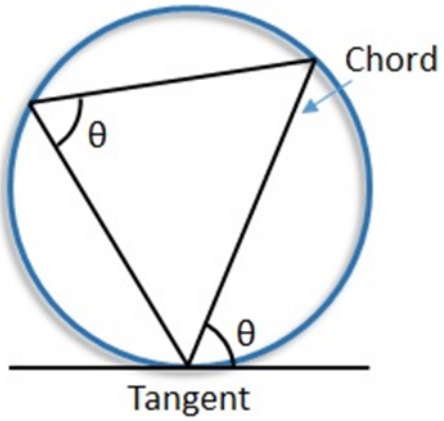
Angles subtended by same arc (both angles are on the circumference**).**



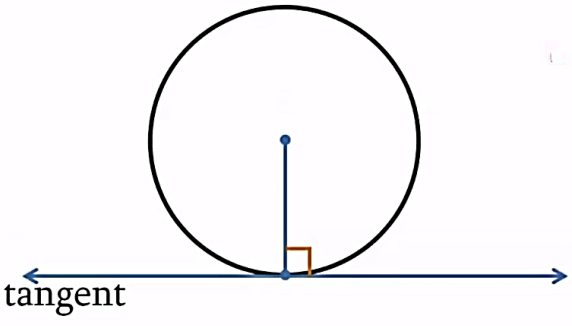
An angle **inscribed** in a **semicircle** is always a right angle**. (Opposite to diameter)**



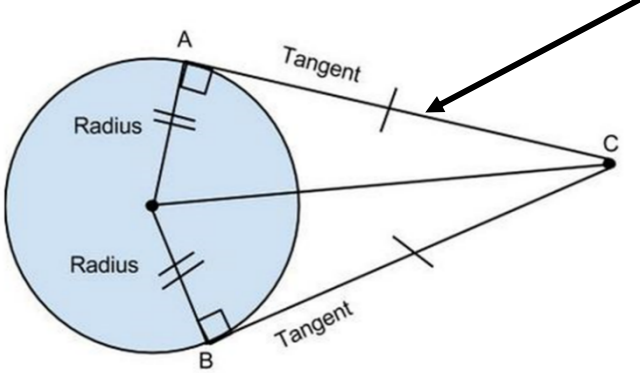
A **Cyclic Quadrilateral's** opposite angles add to 180° **(A+C=B+D=180°)**

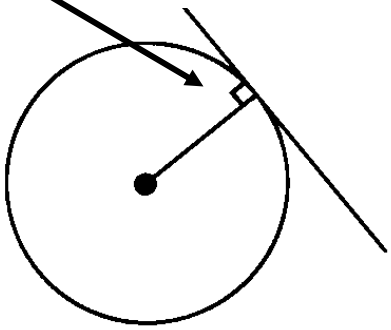


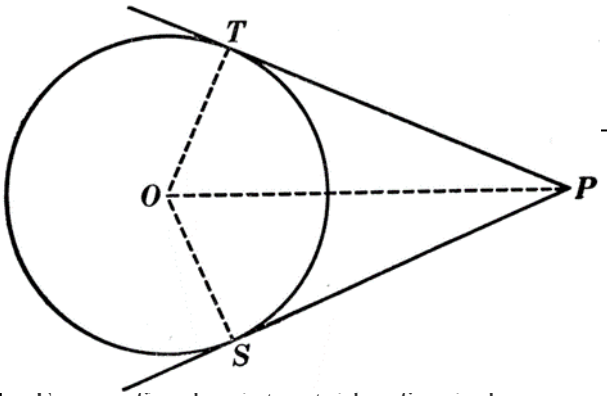
Alternate segment



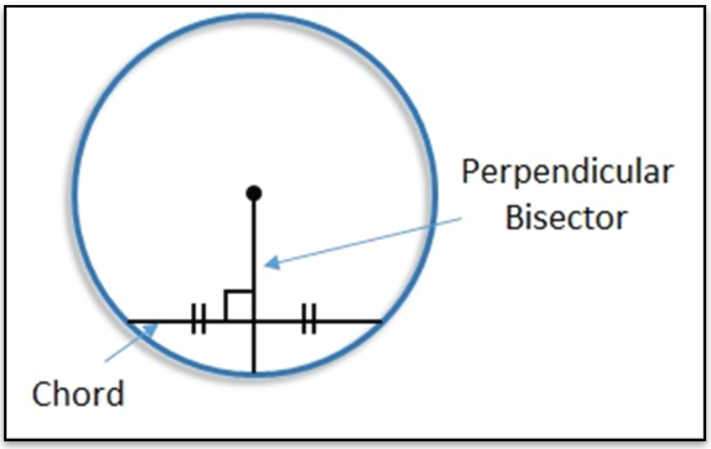
A tangent is a line that just touches a circle at one point. Tangent line meets the radius with 90° angle.

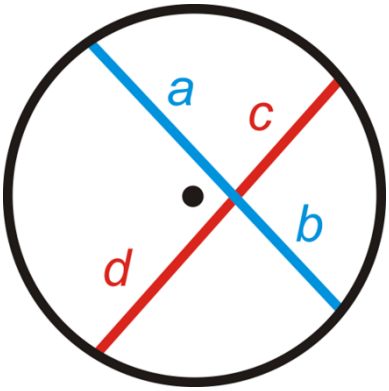






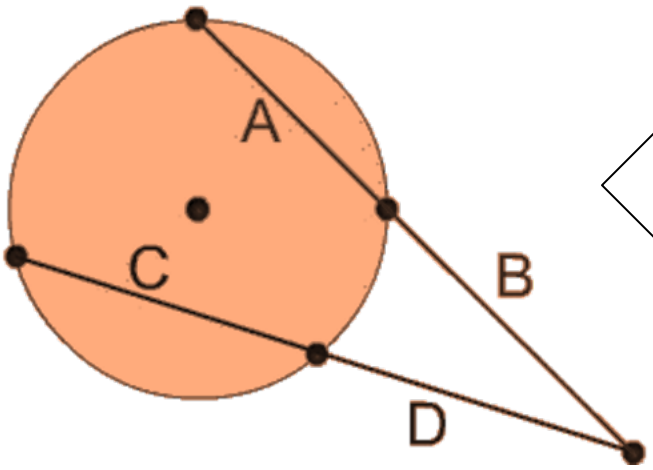
From a fixed point outside of a circle, you can draw only draw two tangent lines that have the same length. ($|PT| = |PS|$)





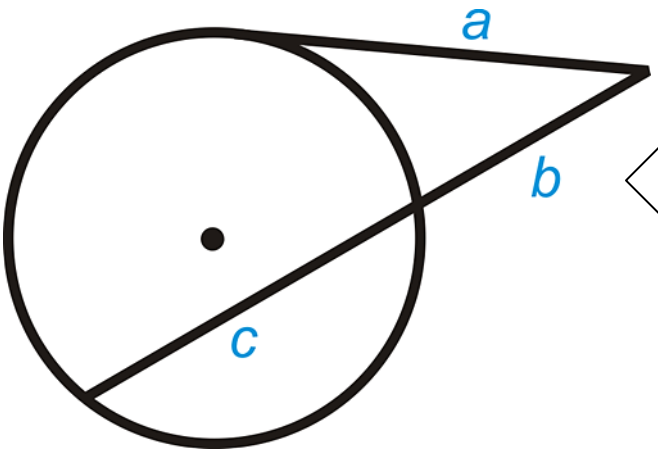
Intersecting chords

$$a \times b = c \times d$$



Intersecting secant lines

$$B \times (A + B) = D \times (C + D)$$



A secant line and a tangent line

$$a^2 = b \times (b + c)$$