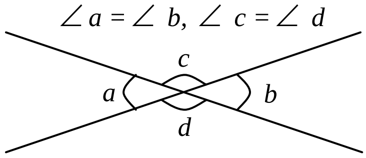
Jφss Sticks by exampaper.com.sg

GEOMETRIC FORMULAE FOR PLANE GEOMETRY

LINES

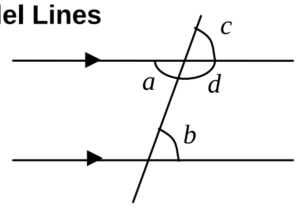
Vertically Opposite Angles

$\angle a = \angle b$, $\angle c = \angle d$



Parallel Lines

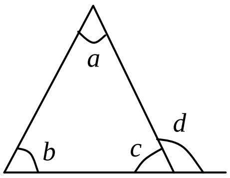
$\angle a = \angle b$ (alt. $\angle$s)
$\angle c = \angle b$ (corresp. $\angle$s)
$\angle b + \angle d = 180°$ (int. $\angle$s)



TRIANGLES

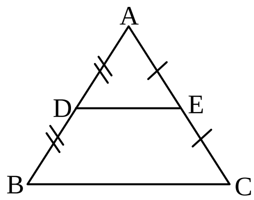
Interior Angles

$\angle a + \angle b + \angle c = 180°$
$\angle a + \angle b = \angle d$ (ext. $\angle$ of Δ)



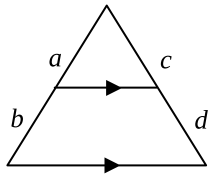
Midpoint Theorem

DE // BC, DE = $\frac{1}{2}$ BC



Intercept Theorem

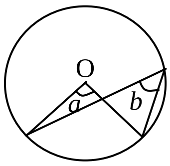
$\frac{a}{b} = \frac{c}{d}$



CIRCLES

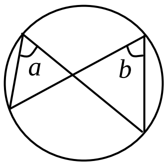
$\angle$ at Centre

$\angle a = 2\angle b$



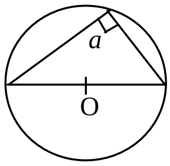
$\angle$s in Same Segment

$\angle a = \angle b$



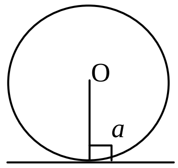
$\angle$ in Semi-Circle

$\angle a = 90°$



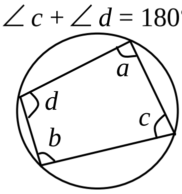
Radius $\perp$ Tangent

$\angle a = 90°$



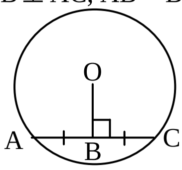
Opp. $\angle$s of Cyclic Quadrilateral

$\angle a + \angle b = 180°$
$\angle c + \angle d = 180°$



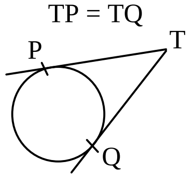
$\perp$ bisector of chord passes through centre

OB $\perp$ AC, AB = BC



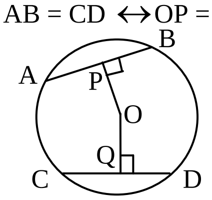
Tangents from external point

TP = TQ



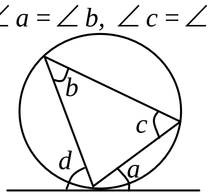
Equal chords equidistant from centre

AB = CD $\leftrightarrow$ OP = OQ



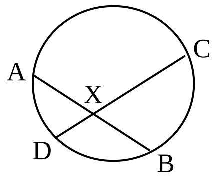
Alternate Segment Theorem

$\angle a = \angle b$, $\angle c = \angle d$



Intersecting Chords Theorem

AX·XB = CX·XD



Tangent-Secant Theorem

AX·BX = TX^2