THOMAS HANEY SECONDARY SCHOOL

Foundations of Mathematics 11
Formulae Sheet

Sum of the measures of the interior angles of a convex polygon with *n* sides can be expressed as: $180°(n-2)$.

The measure of each interior angle of a regular polygon is: $180° \frac{(n-2).}{n}$

The sum of the measures of the exterior angles of any convex polygon is 360°.

Sine Law:

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

Cosine Law:

$$a^2 = b^2 + c^2 - 2bc\ cos\ A$$
$$b^2 = a^2 + c^2 - 2ac\ cos\ B$$
$$c^2 = a + b^2 - 2ab\ cos\ C$$

For any angle θ:

sin θ = sin (180° - θ)
cos θ = - cos (180° - θ)
tan θ = - tan (180° - θ)

Deviation

$(x - \bar{x})$ $\bar{x}$: is the mean of the data

Standard Deviation

$$\sigma = \sqrt{\frac{\Sigma(x-\bar{x})^2}{\eta}}$$

Mean

$$\bar{x} = \frac{\Sigma x}{\eta}$$

Z-Score

$$z = \frac{x - \mu}{\sigma}$$

The vertex form of the equation of a quadratic function is written as:

$$y = a(x - h)^2 + k$$

The quadratic formula is:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$