

These are the formulae that will be given to help you to answer the **IGCSE 0606 Additional Maths** Questions. However, more important is that you know how to apply those formulae to solve your questions. Basically there are divided into 2 categories:

## 1. Algebra

### *Quadratic Equation*

For equation  $ax^2 + bx + c = 0$ ,

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

### *Binomial Theorem*

$$(a + b)^n = a^n + \binom{n}{1} a^{n-1} b + \binom{n}{2} a^{n-2} b^2 + \dots + \binom{n}{r} a^{n-r} b^r + \dots + b^n,$$

where  $n$  is a positive integer and  $\binom{n}{r} = \frac{n!}{(n-r)!r!}$

## 2. Trigonometry

### *Identities*

$$\sin^2 A + \cos^2 A = 1$$

$$\sec^2 A = \tan^2 A + 1$$

$$\operatorname{cosec}^2 A = \cot^2 A + 1$$

### *Formulae for $\triangle ABC$*

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

$$a^2 = b^2 + c^2 - 2bc \cos A$$

$$\Delta = \frac{1}{2} bc \sin A$$