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 formulaes 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

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

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 $\triangle ABC$

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

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

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