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**
   
   \[
   (a+b)^n = a^n + \binom{n}{1}a^{n-1}b + \binom{n}{2}a^{n-2}b^2 + \ldots + \binom{n}{r}a^{n-r}b^r + \ldots + b^n,
   \]
   
   where \( n \) is a positive integer and \( \binom{n}{r} = \frac{n!}{(n-r)!r!} \)

2. **Trigonometry**

   **Identities**
   
   \[
   \sin^2 A + \cos^2 A = 1
   \]
   
   \[
   \sec^2 A = \tan^2 A + 1
   \]
   
   \[
   \cosec^2 A = \cot^2 A + 1
   \]

   **Formulae for \( \triangle ABC \)**
   
   \[
   \frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}
   \]
   
   \[
   a^2 = b^2 + c^2 - 2bc \cos A
   \]
   
   \[
   \Delta = \frac{1}{2} bc \sin A
   \]