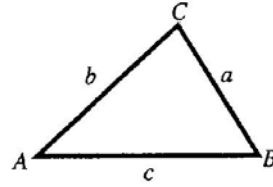


Formulae Sheet: 6993 Additional Mathematics

In any triangle ABC

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



Binomial expansion

When n is a positive integer

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

where

$$\binom{n}{r} = {}^n C_r = \frac{n!}{r!(n-r)!}$$