

## NOTICE TO CENTRES

FAO: Heads of Maths; Maths departments; Examination Officers

Date: January 2009

Subject: Formulae Sheet for Additional Mathematics (6993)

### **FREE STANDING MATHEMATICS QUALIFICATION (ADVANCED) ADDITIONAL MATHEMATICS (6993)**

#### FORMULAE SHEET

From June 2009 onward we will include a Formulae Sheet for the above qualification. The Formulae Sheet will be printed on page two of the question paper and will contain two formulae: the **Cosine rule** and the **Binomial expansion**.

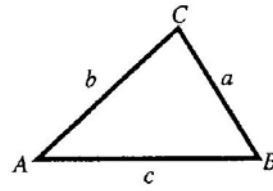
Please find the attached copy of this new Formulae Sheet.

Any enquiry about this notice should be referred to the OCR Customer Contact Centre, (01223 553998), OCR, 1 Hills Road, Cambridge, CB1 2EU.

## Formulae Sheet: 6993 Additional Mathematics

In any triangle  $ABC$

**Cosine rule**  $a^2 = b^2 + c^2 - 2bccosA$



**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

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