

NOTICE TO CENTRES

FAO: Heads of Maths; Maths departments

Date: March 2009

Subject: GCSE Mathematics A B C

OCR GCSE MATHEMATICS A B C HIGHER TIER FORMULAE SHEETS

Dear Colleagues

Following discussions with the QCA and Ofqual, OCR is pleased to announce that the formula for the area of a trapezium will be included in the formulae sheets for Higher Tier question papers for the June 2009 series onwards. This formula had previously been provided on Foundation Tier question papers only.

This addition affects the formulae sheets for the following question papers:

Code	Specification	Title of paper
J512/03	J512 – Linear	Paper 3 (Higher Tier)
J512/04	J512 – Linear	Paper 4 (Higher Tier)
B278	J517 – Graduated Assessment	Module Test M8
B279	J517 – Graduated Assessment	Module Test M9
B280	J517 – Graduated Assessment	Module Test M10
B282	J517 – Graduated Assessment	Terminal Paper (Higher Tier)
B293	J519 – ME1	Paper 3 (Higher Tier)
B294	J519 – ME1	Paper 4 (Higher Tier)

A specimen copy of the new Higher Tier formulae sheet can be found overleaf.

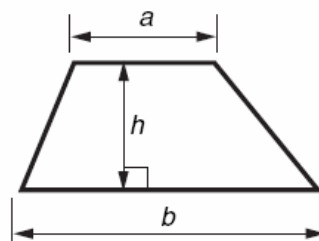
GCSE MATHEMATICS C (GRADUATED ASSESSMENT) MODULE TEST M10

OCR is delighted to announce that unit B280 (Module Test M10) will be available in January 2010 and subsequent January series. This means that able Year 11 candidates could take their final module in January and could also use this as a certification series. An updated version of the J517 specification, showing this change, is now available on the OCR website.

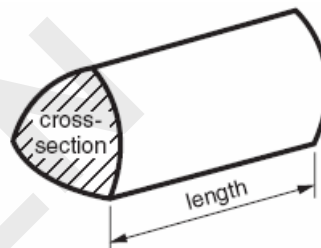
Any enquiry about this notice should be referred to the OCR Customer Contact Centre, (01223 553998), OCR, 1 Hills Road, Cambridge, CB1 2EU.

Formulae Sheet: Higher Tier

Area of trapezium = $\frac{1}{2}(a + b)h$



Volume of prism = (area of cross-section) × length

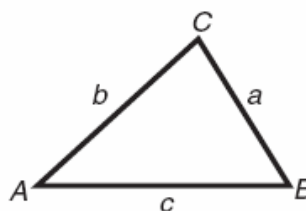


In any triangle *ABC*

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

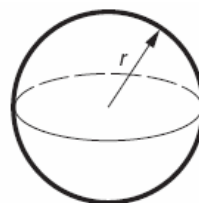
Cosine rule $a^2 = b^2 + c^2 - 2bc \cos A$

Area of triangle = $\frac{1}{2}ab \sin C$



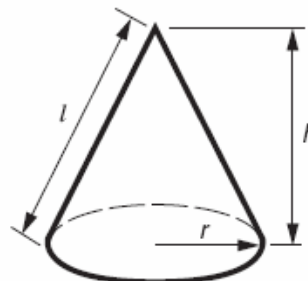
Volume of sphere = $\frac{4}{3}\pi r^3$

Surface area of sphere = $4\pi r^2$



Volume of cone = $\frac{1}{3}\pi r^2h$

Curved surface area of cone = πrl



The Quadratic Equation

The solutions of $ax^2 + bx + c = 0$, where $a \neq 0$, are given by

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