



BOARD OF STUDIES
NEW SOUTH WALES

**1998
SCHOOL
CERTIFICATE
EXTERNAL
TEST**

17 November
Start 9.25 am

MATHEMATICS

**SAMPLE
QUESTIONS
& FORMULAE
BOOKLET**

Instructions for answering questions in Section 1 and Section 2–Part A.

- Complete your answers in either blue or black pen, or in pencil.
- **Multiple choice**
Select the alternative that best answers the question. Fill in the response circle completely.

Sample 1: $2 + 4 =$ (A) 2 (B) 6 (C) 8 (D) 9

A B C D

If you think that you have made a mistake, put a cross through the incorrect answer and fill in the new answer. If you are using pencil you may rub out the incorrect answer and fill in the new answer.

A B C D

If you change your mind and have crossed out what you consider to be the correct answer, then indicate the correct answer by writing the word *correct* and drawing an arrow as follows:

correct
↓
A B C D

Multiple choice (*questions which may have more than one correct answer*)

Sample 2: $\frac{2}{3} =$

(A) $\frac{2-1}{3-1}$ (B) $\frac{2+1}{3+1}$ (C) $\frac{2 \times 1}{3 \times 1}$ (D) $\frac{2 \div 1}{3 \div 1}$

A B C D

Two oval shapes have been filled in to show the two correct answers.

If you think that you have made a mistake, put a cross through the incorrect answer and fill in the new answer. If you are using pencil you may rub out the incorrect answer and fill in the new answer.

If you change your mind and have crossed out what you consider to be the correct answer, then indicate the correct answer by writing the word *correct* and drawing an arrow.

FORMULAEFor use in **SECTION 1** and **SECTION 2**Circumference of a circle = $\pi \times$ diameter

$$[C = \pi d]$$

Area of a circle = $\pi \times$ radius squared

$$[A = \pi r^2]$$

Area of a parallelogram = base \times perpendicular height

$$[A = bh]$$

Area of a rhombus = half the product of the diagonals

$$[A = \frac{1}{2}xy]$$

Area of a trapezium = half the sum of the parallel sides \times perpendicular height

$$[A = \left(\frac{a+b}{2} \right) h]$$

Volume of a prism = area of cross-section \times height

$$[V = Ah]$$

Volume of a cylinder = $\pi \times$ radius squared \times height

$$[V = \pi r^2 h]$$

Pythagoras' theorem states:

*In a right-angled triangle,**the hypotenuse squared = the sum of the squares of the other two sides*

$$[c^2 = a^2 + b^2]$$