

Reference Sheet for Use in the Mathematics, Mathematics Extension 1 and Mathematics Extension 2 HSC Examinations

Purpose and Development Principles

Purpose

The Reference Sheet is designed as a memory aid. It is provided in order to make it unnecessary for candidates to memorise a range of formulae from the Mathematics ('2 Unit') and Mathematics Extension 1 Preliminary and HSC courses in preparation for the Mathematics, Mathematics Extension 1 and Mathematics Extension 2 HSC examinations.

Note: No additional formulae (ie formulae specifically from the Mathematics Extension 2 course*) will be available for use in the Mathematics Extension 2 HSC examination.

Development principles

1. The formulae on the Reference Sheet are from the Stage 6 Mathematics and Mathematics Extension 1 Preliminary and HSC courses.

(This includes formulae that are introduced in Stage 5 and referred to in the Mathematics and Mathematics Extension 1 Preliminary and HSC courses. Formulae that are part of the Stage 4 content of the *Mathematics K–10 Syllabus* (2012) are considered assumed knowledge.)

2. In general, a formula that is a case of, or is readily obtained from, another included formula, is not included.
3. A formula that essentially represents a statement or expression of a fundamental syllabus concept or definition is not included. (For example: formula for the midpoint of an interval.)
4. Formulae that are introduced in Stage 5 of the *Mathematics K–10 Syllabus* (2012) that are not referred to in the Mathematics and Mathematics Extension 1 Preliminary and HSC courses may be needed on an irregular basis in the Mathematics and Mathematics Extension 1 HSC examinations. Where needed, such formulae will be given with the question. (For example: formulae for surface area and volume of cylinder/cone/sphere.)
5. As the Reference Sheet is designed as a memory aid only, terms within the formulae provided are not defined.

* The [Mathematics 4 Unit Syllabus](#) represents the highest level of study in the NSW K–12 Mathematics curriculum and is 'designed for students with a special interest in mathematics who have shown that they possess special aptitude for the subject. It represents a distinctly high level in school mathematics, involving the development of considerable manipulative skill and a high degree of understanding of the fundamental ideas of algebra and calculus' (page 10). As such, the ability to derive formulae and results is important across the topic areas of the course.