

Head Start: Year 7 and 8 Mathematics

A course designed to cover the first two years of high school mathematics.

Course Overview

Head Start: Year 7 and 8 Mathematics (formerly known as Fundamentals 1) is an intensive program designed for students looking to build a strong foundation in core mathematical skills. Whether preparing for senior mathematics, catching up on missed concepts, or simply wanting to approach maths with greater confidence, this course provides the essential toolkit that all higher-level mathematics depends upon.

Mathematics is cumulative—every new topic builds on what came before. Students who struggle in senior maths often don't lack intelligence; they're missing foundational pieces that were never properly taught or solidified. Fractions feel mysterious, algebra seems like arbitrary symbol manipulation, and graphs don't connect to equations in any meaningful way. This course addresses these gaps directly. Students will work through arithmetic, algebraic thinking and linear relationships in a logical sequence, building genuine understanding rather than memorised procedures. By the end, concepts that once seemed difficult become tools students can use with confidence.

This Head Start course prepares students for Years 8 and 9, as well as for our follow-on course, Head Start: Year 9 and 10 Mathematics, where we extend into quadratics, exponentials, logarithms and trigonometry. Students receive a detailed course book with explanations, practice questions and worksheets—an excellent reference as they progress through their mathematical journey.

While the course is intense, almost all of our students have found it exceptionally useful, and some have even gone on to be accelerated in mathematics or achieve their first A.

Course Delivery:

- Lecture-style classes
- Small-group tutorials
- Workbooks and additional worksheets
- Examinations

Target Students:

- Advanced primary students
- Year 7 students
- Year 8 students

Key Course Information

Length: 40 Hours total (5 days)
Dates: Monday 18th to Friday 22nd January
Times: 9am to 5pm daily
Location: Wise Minds Overflow
Positions: 20 students (First in best dressed)
Price: $800 for the entire week (Including GST)
(Can be paid in two equal instalments)

Relevant School Subjects

- Year 7 Mathematics
- Year 8 Mathematics
- Year 9 Mathematics

Enrolment:

Please email the Course Director below to express your interest and request enrolment in the course. Please note that a deposit is required to confirm your place.

Course Director: Rhys@WiseMindsTutoring.com.au (Ph: 0489089919)
Course Convenor: Lachlan@WiseMindsTutoring.com.au (Ph: 0489071014)

Topic List

1. Numbers and Manipulation

1. Mathematical Terminology
2. Addition
3. Subtraction
4. Multiplication
5. Division
6. Order of Operations
7. Equivalent Fractions
8. Addition of Fractions
9. Adding and Subtracting Fractions
10. Multiplying and Dividing Fractions
11. Proportions and Percentages
12. Using Proportions and Percentages

2. Introduction to Algebra

1. What is Algebra?
2. Algebraic Terminology
3. Substitution of a Variable
4. Adding and Subtracting Terms
5. Multiplying and Dividing Terms
6. Algebraic Fractions

3. Expanding

1. Expanding and Simplification
2. Expanding Brackets
3. Expanding Binomials

4. Factorising

1. Understanding Terms
2. Factorising out a Number
3. Factorising out a Variable
4. Factorising out a Function

5. Equations

1. The Definition of an Equation
2. The Requirements to Solve for x
3. Solving Equations
4. Solving Harder Equations
5. Expanding and Simplifying to Solve Equations
6. Equations as a Line
7. Inequalities as a Region
8. The Number Plane
9. The Relationship Between x and y
10. The x- and y-Intercepts
11. The Gradient
12. $y = mx + c$
13. Parallel Lines
14. Using Straight-Line Graphs
15. Cartesian Transformations
16. Congruent Triangles and Quadrilaterals
17. Similar Figures and Similar Triangles

6. Introduction to Surds and Index Laws

1. What is an Index?
2. Multiplying and Dividing Powers
3. Adding Powers
4. Overview of the Index Laws
5. Surds
6. Rationalising the Denominator

7. Shapes, Area and Volume (Measurement)

1. Lines
2. Angles
3. Angles in Parallel Lines
4. Angles in Triangles
5. Quadrilaterals
6. Circle Geometry
7. Triangles
8. Length and Perimeter of Shapes
9. Pythagoras' Theorem
10. Similar Triangles
11. Congruent Triangles
12. Area of Basic Shapes
13. Volume and Surface Area of 3-Dimensional Shapes
14. Introduction to π and Circles
15. Finding the Length of the Circumference
16. Area of a Circle
17. Perimeter of a Circle
18. Applying π
19. Volume and Surface Area of Circle-Related Shapes
20. Complex Perimeter, Area and Volume

8. Probability

1. Introduction to Probability
2. Simple Probability
3. Multi-Step Probability
4. Tree Diagrams
5. Venn Diagrams
6. Experimental Probability