



# STUDY GUIDE

## Year 9 Mathematics

## TERM 4

### Assessment

A task  
Mental computation  
End of Term Test

7th week of Term  
Last week of Term  
Last week of Term

Chapter	Strand Sub-Strand	Content Description
<b>Coordinate Geometry</b> Chapter 16 (2 weeks)	Number & Algebra <b>Linear and Non-linear Relationships</b>	<ul style="list-style-type: none"> <li>★ Find the distance between two points located on a Cartesian plane using a range of strategies, including graphing software</li> <li>★ investigating graphical and algebraic techniques for finding distance</li> <li>★ Find the midpoint and gradient of a line segment (interval) on the Cartesian plane using a range of strategies, including graphing software</li> <li>★ investigating graphical and algebraic techniques for finding midpoint and gradient</li> </ul>
<b>Trigonometry 2</b> Chapter 17 (2 weeks)	Measurement & Geometry <b>Pythagoras and Trigonometry</b>	<ul style="list-style-type: none"> <li>★ Use similarity to investigate the constancy of the sine, cosine and tangent ratios for a given angle in right-angled triangles</li> <li>★ developing understanding of the relationship between the corresponding sides of similar right-angled triangles</li> <li>★ Apply trigonometry to solve right-angled triangle problems</li> <li>★ understanding the terms ‘adjacent’ and ‘opposite’ sides in a right-angled triangle</li> <li>★ selecting and accurately using the correct trigonometric ratio to find unknown sides (adjacent, opposite and hypotenuse) and angles in right-angled triangles</li> </ul>
<b>Algebra 2</b> Chapter 18 (2 weeks)	Number & Algebra <b>Patterns and Algebra</b>	<ul style="list-style-type: none"> <li>★ Apply the distributive law to the expansion of algebraic expressions, including binomials, and collect like terms where appropriate</li> <li>★ understanding that the distributive law can be applied to algebraic expressions as well as numbers, and understanding the inverse relationship between expansion and factorisation</li> </ul>
<b>Probability 2</b> Chapter 19 (2 weeks)	Statistics & Probability <b>Chance</b>	<ul style="list-style-type: none"> <li>★ Investigate reports of surveys in digital media and elsewhere for information on how data were obtained to estimate population means and medians</li> <li>★ investigating a range of data and its sources, for example the age of residents in Australia, Cambodia and Tonga; the number of subjects studied at school in a year by 14-year-old students in Australia, Japan and Timor-Leste</li> <li>★ Investigate techniques for collecting data, including census, sampling and observation</li> </ul>
<b>Review</b> Chapter 20 (2 weeks)	All of above	All of above