

# CONTENTS

## Section A Number

1	Whole Numbers, Factors, Multiples & Primes	<b>6</b>	7	Fractions – operations	<b>11</b>
2	Multiples Of Whole Numbers	<b>7</b>	8	Percentage	<b>11</b>
3	Powers And Roots	<b>8</b>	9	Applications Using Percentages	<b>12</b>
4	Decimals	<b>8</b>	10	Ratios	<b>13</b>
5	Application of Decimals - rounding significant figures	<b>9</b>	11	GST And Interest	<b>14</b>
6	Standard Form	<b>10</b>	12	Number Overview	<b>15</b>

## Section B Measurement

1	Units Of Measurement	<b>17</b>	6	Volume – pyramids	<b>23</b>
2	Rectangles & Squares	<b>17</b>	7	Volume – spheres	<b>24</b>
3	Triangles, Trapezium, Parallelogram	<b>19</b>	8	Volumes – surface area	<b>24</b>
4	Circles	<b>21</b>	9	Measurement Overview	<b>26</b>
5	Volume – prisms	<b>22</b>			

## Section C Algebra

1	Basic Algebra Overview	<b>28</b>	10	Factorising III	<b>35</b>
2	Equations I	<b>28</b>	11	Factorising Overview	<b>36</b>
3	Equations II	<b>29</b>	12	Number Patterns	<b>37</b>
4	Equations III	<b>30</b>	13	Graphs – co-ordinates I	<b>38</b>
5	Equation Overview	<b>31</b>	14	Graphs – co-ordinates II	<b>39</b>
6	Expanding I	<b>32</b>	15	Graphs – gradients	<b>39</b>
7	Expanding II	<b>32</b>	16	Graphs – gradients & Y intercepts	<b>40</b>
8	Factorising I	<b>34</b>	17	Graphs – negative gradients	<b>41</b>
9	Factorising II	<b>35</b>			

## Section D Geometry

1	Angles - revision	<b>44</b>	8	Symmetry	<b>53</b>
2	Bearings	<b>45</b>	9	Transformations – reflection, transformation & translation	<b>54</b>
3	Parallel Lines & Angles	<b>45</b>	10	Enlargement	<b>55</b>
4	Triangles	<b>47</b>	11	Construction I	<b>56</b>
5	Circle Geometry I	<b>48</b>	12	Construction II	<b>57</b>
6	Circle Geometry II	<b>49</b>			
7	Polygons	<b>51</b>			

## Section E Statistics

1	Definitions & Types	<b>59</b>	5	Statistical Spread	<b>62</b>
2	Constructing Graphs	<b>59</b>	6	Misleading Graphs	<b>63</b>
3	Interpreting Graphs	<b>61</b>	7	Frequency Graphs	<b>65</b>
4	Measures of Central Tendency – mean, medium, mode	<b>62</b>	8	Statistics Overview	<b>65</b>

## Section F Probability

1	Theoretical Probability	<b>67</b>	3	Tree Diagrams	<b>68</b>
2	Experimental Probability	<b>67</b>			

## Section G Trigonometry

Memory Aids	<b>71</b>	5	Using Cosine	<b>76</b>	
1	Pythagoras	<b>72</b>	6	Using Tangent	<b>77</b>
2	Using Pythagoras	<b>73</b>	7	Trigonometry Overview	<b>78</b>
3	Pythagoras – using the hypotenuse	<b>74</b>			
4	Using Sine	<b>75</b>			

## A Note for Students

If you are good at maths you will probably enjoy it and put more effort into it. If you find maths difficult, chances are you won't like it very much either. I hope this workbook will help you do better in this subject and that you will come to enjoy it more.

The work in this write-on workbook is extra to class work given by your teacher. Each page is introduced with a short explanation to jog your memory and an example to show you how it works.

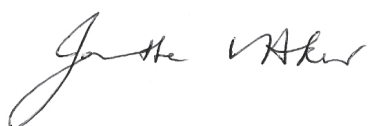
There are lots of puzzles and codes to do so it should be lots of fun.

Actually doing maths is the best practice and the most likely way for you to learn to understand it. This book is a fun way to reinforce what you have learned in class.

## A Note for Parents / Caregivers

When your son/daughter completes this book they will have a good understanding of mathematics and will be ready for the next level.

A scientific calculator is essential for mathematics and this book helps students use the various keys that will enable them to calculate accurately.



Jeanette Aker