

# Contents

<b>A Tour of Your Textbook</b>	<b>vi</b>	<b>3.6 Common Distributions</b>	<b>148</b>
<b>Chapter 1</b>		<b>Chapter 3 Review</b>	<b>156</b>
<b>Trigonometry</b>	<b>2</b>	<b>Chapter 3 Practice Test</b>	<b>158</b>
<b>Prerequisite Skills</b>	<b>4</b>	<b>Chapters 1 to 3 Review</b>	<b>160</b>
<b>1.1 Revisit the Primary Trigonometric Ratios</b>	<b>6</b>	<b>Task: Road to the Stanley Cup</b>	<b>162</b>
<b>1.2 Solve Problems Using Trigonometric Ratios</b>	<b>16</b>	<b>Chapter 4</b>	
<b>1.3 The Sine Law</b>	<b>24</b>	<b>Quadratic Relations I</b>	<b>164</b>
<b>1.4 The Cosine Law</b>	<b>34</b>	<b>Prerequisite Skills</b>	<b>166</b>
<b>1.5 Make Decisions Using Trigonometry</b>	<b>42</b>	<b>4.1 Modelling With Quadratic Relations</b>	<b>168</b>
<b>Chapter 1 Review</b>	<b>52</b>	<b>4.2 The Quadratic Relation <math>y = ax^2 + k</math></b>	<b>180</b>
<b>Chapter 1 Practice Test</b>	<b>54</b>	<b>4.3 The Quadratic Relation <math>y = a(x - h)^2</math></b>	<b>194</b>
<b>Chapter 2</b>		<b>4.4 The Quadratic Relation <math>y = a(x - h)^2 + k</math></b>	<b>204</b>
<b>Probability</b>	<b>56</b>	<b>4.5 Interpret Graphs of Quadratic Relations</b>	<b>218</b>
<b>Prerequisite Skills</b>	<b>58</b>	<b>Chapter 4 Review</b>	<b>226</b>
<b>2.1 Probability Experiments</b>	<b>60</b>	<b>Chapter 4 Practice Test</b>	<b>228</b>
<b>2.2 Theoretical Probability</b>	<b>68</b>	<b>Chapter 5</b>	
<b>2.3 Compare Experimental and Theoretical Probabilities</b>	<b>76</b>	<b>Quadratic Relations II</b>	<b>230</b>
<b>2.4 Interpret Information Involving Probability</b>	<b>86</b>	<b>Prerequisite Skills</b>	<b>232</b>
<b>Chapter 2 Review</b>	<b>94</b>	<b>5.1 Expand Binomials</b>	<b>234</b>
<b>Chapter 2 Practice Test</b>	<b>96</b>	<b>5.2 Change Quadratic Relations From Vertex Form to Standard Form</b>	<b>242</b>
<b>Chapter 3</b>		<b>5.3 Factor Trinomials of the Form <math>x^2 + bx + c</math></b>	<b>248</b>
<b>One Variable Statistics</b>	<b>98</b>	<b>5.4 Factor Trinomials of the Form <math>ax^2 + bx + c</math></b>	<b>256</b>
<b>Prerequisite Skills</b>	<b>100</b>	<b>5.5 The <math>x</math>-Intercepts of a Quadratic Relation</b>	<b>264</b>
<b>3.1 Sampling Techniques</b>	<b>102</b>	<b>5.6 Solve Problems Involving Quadratic Relations</b>	<b>276</b>
<b>3.2 Collect and Analyse Data</b>	<b>110</b>	<b>Chapter 5 Review</b>	<b>286</b>
<b>3.3 Display Data</b>	<b>118</b>	<b>Chapter 5 Practice Test</b>	<b>288</b>
<b>3.4 Measures of Central Tendency</b>	<b>130</b>	<b>Task: Design a Soccer Field</b>	<b>290</b>
<b>3.5 Measures of Spread</b>	<b>140</b>		

## Chapter 6

<b>Geometry in Design</b>	<b>292</b>
<b>Prerequisite Skills</b>	<b>294</b>
<b>6.1 Investigate Geometric Shapes and Figures</b>	<b>296</b>
<b>6.2 Perspective and Orthographic Drawings</b>	<b>306</b>
<b>6.3 Create Nets, Plans, and Patterns</b>	<b>318</b>
<b>Use Technology</b>	
Use <i>The Geometer's Sketchpad</i> ® to Draw Plans With Dynamic Measurements	<b>325</b>
<b>6.4 Scale Models</b>	<b>327</b>
<b>6.5 Solve Problems With Given Constraints</b>	<b>335</b>
<b>Use Technology</b>	
Use <i>The Geometer's Sketchpad</i> ® to Create Tessellations Using Rotations	<b>344</b>
<b>Chapter 6 Review</b>	<b>346</b>
<b>Chapter 6 Practice Test</b>	<b>348</b>
<b>Chapters 4 to 6 Review</b>	<b>350</b>

## Chapter 7

<b>Exponents</b>	<b>352</b>
<b>Prerequisite Skills</b>	<b>354</b>
<b>7.1 Exponent Rules</b>	<b>356</b>
<b>7.2 Zero and Negative Exponents</b>	<b>364</b>
<b>7.3 Investigate Exponential Relationships</b>	<b>372</b>
<b>7.4 Exponential Relations</b>	<b>382</b>
<b>7.5 Modelling Exponential Growth and Decay</b>	<b>395</b>
<b>7.6 Solve Problems Involving Exponential Growth and Decay</b>	<b>406</b>
<b>Chapter 7 Review</b>	<b>414</b>
<b>Chapter 7 Practice Test</b>	<b>416</b>

## Chapter 8

<b>Compound Interest</b>	<b>418</b>
<b>Prerequisite Skills</b>	<b>420</b>
<b>8.1 Simple and Compound Interest</b>	<b>422</b>
<b>8.2 Compound Interest</b>	<b>430</b>
<b>8.3 Present Value</b>	<b>436</b>
<b>8.4 The TVM Solver</b>	<b>442</b>
<b>8.5 Effects of Changing the Conditions on Investments and Loans</b>	<b>446</b>
<b>Chapter 8 Review</b>	<b>454</b>
<b>Chapter 8 Practice Test</b>	<b>456</b>

## Chapter 9

<b>Personal Finance</b>	<b>458</b>
<b>Prerequisite Skills</b>	<b>460</b>
<b>9.1 Savings Alternatives</b>	<b>462</b>
<b>9.2 Investment Alternatives</b>	<b>468</b>
<b>9.3 Manage Credit Cards</b>	<b>476</b>
<b>9.4 Obtain a Vehicle</b>	<b>482</b>
<b>9.5 Operate a Vehicle</b>	<b>489</b>
<b>Chapter 9 Review</b>	<b>496</b>
<b>Chapter 9 Practice Test</b>	<b>498</b>
<b>Chapters 7 to 9 Review</b>	<b>500</b>
<b>Task: Organise Your Personal Finances</b>	<b>502</b>
<b>Chapter 1 to 9 Review</b>	<b>504</b>

<b>Technology Appendix</b>	<b>514</b>
<b>Answers</b>	<b>550</b>
<b>Glossary</b>	<b>586</b>
<b>Index</b>	<b>593</b>
<b>Credits</b>	<b>596</b>