

# Stage 8 Ratios and Proportions Student Planner

Stage	IALT	Personalised Activity	Computer Mathletics	Maintenance Group Box
8	1. Solve + and - , x and / problems by using conversions between fractions and decimals.	<p><u>NZCM S7 Bk 2-</u> Decimals, fractions and percentages pages 122-127.</p> <p>See <u>Problem Progressions AM-AP Page 3 Ratios and Proportions</u></p> <p><u>FIO</u> N3-4.2 Spring Fever p.6 N3-4.2 Ageing in Space p.8 N3-4.2 Meal Deal p.9 N3-4.3 Dog's Dinner p.14 NS&amp;AT 3-4.2 Using Mates p.16 NS&amp;AT 3-4.2 Compatible Multiples p.21 NS&amp;AT 7/8 4.2 Astronomical Proportions p.16 NS 7/8 4.2 Line Up p.20 NS 7/8 4.5 Body Mass p.10 NS 7/8 4.6 Accident Prone p.11</p>	<p><u>Year 7 Fractions and Decimals</u> -Are you ready? -Mixed to Improper -Improper to Mixed -Fractions to Decimals -Decimals to Fractions 1 -Unit Fractions -TEST</p>	<p>The Card Game-(adapted)</p> <p>Number Fans AM/AP</p> <p>Game- Fraction Three in a Row</p> <p>Fraction Hunt</p> <p>Fraction Bingo</p> <p><u>NNN Stages 7 &amp; 8 Part B:</u> Fraction game p.50 Bigger/smaller p.52</p>
	2. Solve problems by multiplying numerators and denominators.	<p><u>Teacher Tools 2005 Fractions, Decimals and Percentages:</u> Folding Fractions and Decimals p.38-39</p>	<p><u>Year 7 Fractions and Decimals something harder</u> -HCF -LCM -Converting Mixed and Improper -Decimals to Fractions 2</p> <p><u>Year 7 Fractions Rules something harder</u> - Multiplying Fractions -Fractions: No Common Denominator -Lowest Common Multiple -Highest common Multiple</p> <p><u>Year 7 Fractions and Decimals</u> -Are you ready? -Mixed to Improper -Improper to Mixed -Fractions to Decimals -Decimals to Fractions 1 -Unit Fractions</p> <p><u>Year 7 Fractions Rules</u> -Are you ready? -One take Fraction -Add: Common Denominator -Subtract Common Denominator -Add: No Common Denominator -Subtract: No Common Denominator</p>	<p>Card Games</p> <p>Salute</p> <p>Create and solve fraction problems with different denominators.</p>

			-Fraction by Whole Number	
<b>3. Solve problems by converting to common denominators.</b>	<p><b>NZCM S7 AM Bk2-</b> Fractions greater than 1 pages 18-21.</p> <p><b>FIO</b> NS&amp;AT3-4.1 Stripping Fractions p.8</p> <p>See <b>Problem Progressions AM-AP Page 2 Ratios and Proportions</b>-for practice questions.</p> <p><b>NNN Stages 7 &amp; 8 Part A:</b> Converting improper fractions p.21</p> <p><b>NNN Stages 7 &amp; 8 Part B:</b> Introducing mixed and common fractions p.41-42</p> <p>See <b>Problem Progressions AA-AM Page 4 Ratios and Proportions</b></p>	<p><u>Year 7 Fractions and Decimals</u> -Are you ready? -Mixed to Improper -Improper to Mixed</p> <p><u>Year 7 Fractions and Decimals</u> -Are you ready? -Mixed to Improper -Improper to Mixed -Fractions to Decimals -Decimals to Fractions 1 -Unit Fractions -TEST</p> <p><u>Year 7 Fractions and Decimals something harder</u> -HCF -LCM -Converting Mixed and Improper -Decimals to Fractions 2</p>	<p>Game- Fraction Three in a Row</p> <p>Fraction Hunt</p> <p>Fraction Bingo</p> <p><u>NNN Stages 7 &amp; 8 Part B:</u> Fraction game p.50 Bigger/smaller p.52</p> <p><u>Create 3-</u> Material Master game 7-9</p>	
<b>4. Solve problems by finding fractions, decimals and percentages of given amounts.</b>	<p><b>NZCM S7 Bk 2-</b> Finding percentages of quantities pages 128-129</p> <p><b>NZCM S7 Bk 2-</b> Finding percentages of quantities pages 130-133.</p> <p><b>Teacher Tools 2005 Fractions, Decimals and Percentages:</b> Hot Shots p.34-35</p> <p>See <b>Problem Progressions AM-AP Page 7 Ratios and Proportions</b> for practice questions.</p> <p><b>FIO</b> N3-4.2 Flying Home p.2 N7/8 4.3 Purchasing Payments p.11 PR 3-4.2 Fully Grown p.9</p>	<p><u>Year 8 Operations with Percentages</u> -Are you ready? -Decimal to Percentage -Percentage to fraction -Percentage Composition -Percentage of a Quantity -Percentage increase and decrease -Percentage word problems -TEST</p>	<p>Create and solve own problems. Fractions game- turn into percentages.</p>	
<b>5. Choose an efficient strategy to solve decimal, fraction and percentage problems.</b>	<p><b>NZCM S7 Bk 2-</b> Decimals, fractions and percentages smorgasbord pages 142-149.</p> <p><b>FIO</b> NS 7/8.2 Gains and Losses p.21</p>	<p><u>Year 8 Operations with Percentages</u> -Are you ready? -Decimal to Percentage -Percentage to fraction -Percentage Composition -Percentage of a Quantity -Percentage increase and decrease -Percentage word problems -TEST</p>	<p>Game- Fraction Three in a Row</p> <p>Fraction Hunt</p> <p>Fraction Bingo</p> <p><u>NNN Stages 7 &amp; 8 Part B:</u> Fraction game p.50 Bigger/smaller p.52</p>	

	<p><b>6. Solve problems by finding equivalent ratios with a common factor or multiplier.</b></p>	<p><b>NZCM S7 Bk 2-</b> (Equivalent ratios and equivalent fractions) pages 137-141</p> <p><b>NZCM S7 Bk 2-</b> (knowledge section) Factors p.168-169</p> <p><b>NZCM S7 Bk 2-</b> (knowledge section) Multiples p.170-171</p> <p>See <b>Problem Progressions AM-AP Page 1 Ratios and Proportions</b>-for practice questions.</p> <p><b>FIO</b> PR3-4.1 Top Shoot p.24 PR3-4.2 Flavoursome p.6 PR3-4.1 de Vinci's Ratio p.24</p>	<p><b>Year 8 Operations with Number (something harder)</b> -Product of prime factors -Highest Common Factor</p> <p><b>Year 8 Factors and Multiples</b> -Highest Common Factor -Lowest Common Multiple -Index Notation -Product of Prime Numbers -Divisibility Tests -TEST</p> <p><b>Year 9 Rates and Ratio</b> -Are you ready? -Ratio -Equivalent Ratios -Dividing a Quantity in a Ratio -Rates Word Problems -Ratio Word Problems -TEST</p>	<p>Game- Fraction Three in a Row.</p>
	<p><b>E1. Compare ratios and proportions.</b></p>	<p><b>NZCM S7 Bk 2-</b> Introducing rates and ratio p.134-136</p> <p><b>Teacher Tools 2005 Fractions, Decimals and Percentages:</b> Mixing Colours p.36-37</p> <p>See <b>Problem Progressions AM-AP Page 5 Ratios and Proportions</b> for practice questions.</p>	<p><b>Year 8 Operations with Percentages</b> -Are you ready? -Decimal to Percentage -Percentage to fraction -Percentage Composition -Percentage of a Quantity -Percentage increase and decrease -Percentage word problems -TEST</p> <p><b>Year 9 Rates and Ratio Something Easier</b> -Highest Common Factor -Lowest Common Multiple</p> <p><b>Year 9 Rates and Ratio</b> -Are you ready? -Ratio -Equivalent Ratios -Dividing a Quantity in a Ratio -Rates Word Problems -Ratio Word Problems -TEST</p>	<p>Create and solve ratio problems</p>
	<p><b>E2. Solve inverse ratio problems.</b></p>	<p>See <b>Problem Progressions AM-AP Page 8 Ratios and Proportions</b></p> <p><b>FIO</b> PR3-4.1 The Right Mix p.22</p> <p><b>FIO</b> PR3-4.2 Balancing Act p.4</p>	<p><b>Year 8 Operations with Percentages</b> -Are you ready? -Decimal to Percentage -Percentage to fraction -Percentage Composition -Percentage of a Quantity -Percentage increase and decrease -Percentage word problems -TEST</p> <p><b>Year 9 Rates and Ratio Something Easier</b></p>	<p>Create and solve ratio problems</p>

			-Highest Common Factor -Lowest Common Multiple  <u>Year 9 Rates and Ratio</u> -Are you ready? -Ratio -Equivalent Ratios -Dividing a Quantity in a Ratio -Rates Word Problems -Ratio Word Problems -TEST	
	<b>E3. Solve rate problems.</b>	<b>NZCM S7 Bk 2-</b> Introducing rates and ratio p.134-136  See <b>Problem Progressions AM-AP Page 4 Ratios and Proportions</b> for practice questions.  <b>FIO</b> NS 7/8 4.2 Fair Exchange p.13 NS 7/8 4.2 Energy Levels p.14 NS 7/8 4.3 Cycling On p.20 NS 7/8 4.5 Dreaming of Millions p.9 PR3-4.1 The Caves of Koor PR3-4.1 Running Hot and Cold p.1 PR3-4.2 Deb the Driver p.2 PR3-4.2 Ray Rates p.17	Year 8 Operations with <u>Percentages (something harder)</u> -Profit loss  <u>Year 9 Rates and Ratio Something Harder</u> -Converting Rates	Create and solve ratio problems