Gulf English School Term 1 Year 9 Mathematics

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| TOPICS: Percentages, Ratio, Proportion, Algebraic products |

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| Themes: Percentages & the real world, Ratio and the real world, Simplification of algebraic products | Level: Year 9 |
| Objectives: To use: mental methods (& calculator methods) to calculate percentages & percentage increase/decrease; To apply knowledge of percentages to contextual questions involving sales, tax etc; To provide clear solutions to reverse percentage problems; To understand and apply the rules of ratio; To express ratio in the form 1:n and interpret this in the context of map ratios; To assess “best buy” by comparing ratios; To apply knowledge of ratio to direct/inverse proportion; To understand the laws of algebra and how they relate to the laws of number; To categorize algebraic products and use the appropriate method to evaluate them; To assess methods of evaluating algebraic products. |

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| Focussing Questions | Key Words |
| * 1. **Percentages**
* Key resources: STP Year 9 Chapter 4 Ex 4a - h
* What methods are there for finding 20% of $350?
* Explain a method for increasing 860km by 12%.
* Create a situation involving % increase/decrease where the answer is 240m.
	+ Assessment: Cumulative quiz

**3-4. Ratio & proportion*** Key resource: STP Year 9 Chapter 5 Ex 5a – 5g
* What is ratio used for? Do the units have an effect on ratio?
	+ Assessment: Cumulative quiz
	1. **Handling data: Probability**
* Key resources: STP Book Year 9 Chapter 6 Ex 6a - j
* What do we use letters in Maths?
* What is the difference between multiplying letters together and multiplying numbers together?
* Jenny thinks that (3x – 2)2 = 3x2 + 12x + 4. Do you agree with Jenny?
	+ Assessment: Cumulative quiz

Assessment: Cumulative test | PercentageMultiplierTaxAllowancesReverse percentageRatioSimplest formInverse“Best buy”Direct proportionInverse proportionAlgebraic productsSingle bracketDouble bracket“ac” methodExpansion of square bracketsDifference of two squares | Explaining wordsMy rationale for … is…The rules of ratio are….The laws of multiplication are that….The appropriate degree of accuracy would be… because…Therefore...The criteria for… is… |

**TEXT BOOK: STP MATHEMATICS YEAR 9**