

Grade 8 Math Expectations for Unit 1

STRAND: Number Sense and Numeration	
Overall Expectations for the Term	Big Ideas Addressed and Related Specific Expectations
☐ represent, compare, and order equivalent representations of numbers, including those involving positive exponents	Quantity Relationships - rational numbers - exponential notation - common factors and common multiples Specific Expectations ☐ express repeated multiplication using exponential notation ☐ represent whole numbers in expanded form using powers of ten ☐ represent, compare, and order rational numbers ☐ translate between equivalent forms of a number ☐ determine common factors and common multiples using the prime factorization of numbers
	Operational Sense - addition, subtraction, multiplication and division · whole numbers and decimal numbers · multi-step problems · percents to one decimal place · integers · order of operation in expressions with brackets and exponents - square roots of whole numbers Specific Expectations ☐ solve multi-step problems arising from real-life contexts and involving whole numbers and decimals, using a variety of tools and strategies ☐ solve problems involving percents expressed to one decimal place and whole-number percents greater than 100 ☐ use estimation when solving problems involving operations with whole numbers, decimals, percents, integers, (and fractions,) to help judge the reasonableness of a solution ☐ multiply and divide decimal numbers by various powers of ten ☐ estimate, and verify using a calculator, the positive square roots of whole numbers, and distinguish between whole numbers that have whole-number square roots (i.e., perfect square numbers) and those that do not ☐ represent the multiplication and division of integers, using a variety of tools ☐ solve problems involving operations with integers, using a variety of tools ☐ evaluate expressions that involve integers, including expressions that contain brackets and exponents, using order of operations