

Homework Help: Grade 9 Essentials (MAT1L)



Please use the list below as a way to demonstrate the 'Big Ideas' to your class or post as a list for the class to see where they can get help on a specific topic. All Session titles are web linked to make this process easier for you and your students. Remember too, that the students have the ability to log in and 'Ask a Tutor' specific questions that may not be answered in the lists below.

A [Glossary of Terms](#) is also available on the Homework Help site to help with clarifying terms as the students require.

** This is a working list which will be updated as resources become available.

****Big Ideas tied to the McGraw Hill 'Math Essentials 9' (2nd Ed)**

Due to the fact that ideas are repeated and built upon as the units progress the ideas are not listed in units but overall concepts.

** Resources were collected from grade 7, grade 8 and grade 9 applied lists supplied by ILC – Homework Help.

Big Ideas from the Course

Big Idea	Resource Type	Session Title
Fractions	Best Sessions	<p>Fractions: How to add fractions A review of the steps for adding fractions.</p> <p>Fractions: How to reduce improper fractions Reducing improper fractions.</p> <p>Fractions: Converting fractions to decimals Learn two strategies for converting fractions to decimals.</p> <p>Fractions word problem: addition and subtraction of fractions Use fraction skills to solve a word problem using three fractions in one expression.</p> <p>Fractions: Adding by converting mixed numbers to improper fractions Convert a mixed number to an improper fraction so that you can add.</p> <p>Fractions: Reducing to lowest terms Learn how to reduce a fraction to lowest terms.</p> <p>Fractions: subtracting using common denominators Find a common denominator so that you can subtract fractions.</p> <p>Fractions: Add, subtract, multiply and divide using BEDMAS Solve an expression using BEDMAS to work with fractions.</p> <p>Fractions - understand what to do with the fractions in a word problem. Interpret a word problem and then discover the difference between multiplying fractions and cross multiplying.</p>
	Listen and Learns	<p>Fractions - Addition and Subtraction Runtime: 40min</p> <p>Fractions - Multiplication and Division Runtime: 40min</p>
	Interactive Tutorials	<p>Fractions</p>
Decimals	Best Sessions	<p>Fractions: Converting fractions to decimals Learn two strategies for converting fractions to decimals.</p>
	Listen and Learns	
	Interactive Tutorials	<p>Decimal Numbers</p>

Percentage	Best Sessions	<p>Percent = Find 25% of 500</p> <p>Find 25% of 500.</p> <p>EQAO: Percent of a Number/Discount for applied test (seminar)</p> <p>This question models the kind of percentage question you might encounter on the applied EQAO test.</p> <p>EQAO: Percent and numeracy questions (seminar)</p> <p>Solve an EQAO problem involving cost and taxes. Two methods to solve the question are shown.</p>
	Listen and Learns	
	Interactive Tutorials	Percentages
Taxes	Best Sessions	<p>EQAO: Percent and numeracy questions (seminar)</p> <p>Solve an EQAO problem involving cost and taxes. Two methods to solve the question are shown.</p>
	Listen and Learns	
	Interactive Tutorials	
Multiplying by 10 or 12	Best Sessions	<p>Integers - Multiplying and Dividing</p> <p>This tutorial will cover two methods for multiplying and dividing integers. We'll be looking at multiplying and dividing positive and negative numbers. It would be helpful to have some paper, a pencil or pen, and a calculator handy.</p>
	Listen and Learns	
	Interactive Tutorials	

Perimeter	Best Sessions	Rectangle - Area and perimeter Use formulas to find the area and perimeter of a rectangle. Perimeter using algebra: Rectangle with sides 3x and 2x-5 (AUDIO) Find the perimeter of a rectangle when the measurements are algebraic expressions. Optimization: Find the maximum area given a set perimeter. Use the given perimeter for find the maximum area of a rectangle. EQAO: Measurement and algebra (seminar) A sample question for the EQAO test that tests your understanding of measurement and algebra. Volume of 3D shapes Learn some hints for remembering formulas for volume. EQAO: Measurement questions on EQAO (seminar) Learn how to approach measurement questions on the EQAO
	Listen and Learns	Measurement: Optimization Runtime: 45min
	Interactive Tutorials	
Volume / capacity	Best Sessions	Volume of 3D shapes Learn some hints for remembering formulas for volume. Volume of a cylinder. Learn to identify a cylinder and find its volume. Volume of a sphere. Given the formula, find the volume of a sphere. Volume of a cone. Learn to identify a cone and understand how to find its volume. Volume of a pyramid. Learn to identify a square or rectangular based pyramid and find its volume. EQAO Maximum volume Determine the maximum volume for a rectangular prism EQAO: Measurement questions on EQAO (seminar) Learn how to approach measurement questions on the EQAO
	Listen and Learns	Measurement: Optimization Runtime: 45min
	Interactive Tutorials	Volume Calculation

Area	Best Sessions	Area of a trapezoid How to use a formula to find the area of a trapezoid Rectangle - Area and perimeter Use formulas to find the area and perimeter of a rectangle Area of a shaded figure using a grid, not formulas Find the area of the shaded figure. Area of Composite shapes Find the area of an irregular polygon. Surface area of a triangular prism. Identify a triangular prism and learn to find the surface area. EQAO: Measurement questions on EQAO (seminar) Learn how to approach measurement questions on the EQAO
	Listen and Learns	Calculating the Area of a Trapezoid Runtime: 30min Calculating the Surface Area of a Cylinder Runtime: 30min
	Interactive Tutorials	
Ratio	Best Sessions	EQAO: Ratio and Proportion Questions (seminar) Learn tips and strategies for solving ratio and proportion questions on the EQAO.
	Listen and Learns	Ratio Runtime: 37min
	Interactive Tutorials	
Unit rate	Best Sessions	EQAO Ratios: unit rate Find the unit rate. EQAO: Rate of Change for applied students (seminar) A sample question involving rate of change that models the type of question applied students will encounter.
	Listen and Learns	
	Interactive Tutorials	
Imperial Unit conversion	Best Sessions	Converting feet to inches. Which is longer 240 inches or 15 feet? Learn to convert feet to inches.
	Listen and Learns	
	Interactive Tutorials	