

Homework Help: Grade 7 Mathematical Units



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.

Number Sense and Numeration

Big Idea	Resource Type	Session Title
Fractions	Best Sessions	Fractions: How to add fractions A review of the steps for adding fractions. Fractions: How to reduce improper fractions Reducing improper fractions. Fractions: Converting fractions to decimals Learn two strategies for converting fractions to decimals. Fractions word problem: addition and subtraction of fractions Use fraction skills to solve a word problem using three fractions in one expression. Fractions: Adding by converting mixed numbers to improper fractions Convert a mixed number to an improper fraction so that you can add. Fractions: Reducing to lowest terms Learn how to reduce a fraction to lowest terms.
	Listen and Learns	Fractions - Addition and Subtraction Runtime: 40min Fractions - Multiplication and Division Runtime: 40min
	Interactive Tutorials	Fractions

Decimals	Best Sessions	Fractions: Converting fractions to decimals Learn two strategies for converting fractions to decimals.
	Listen and Learns	
	Interactive Tutorials	Decimal Numbers
Integers	Best Sessions	
	Listen and Learns	Integers - Adding and Subtracting Runtime: 47min
	Interactive Tutorials	
Squares and Square Roots	Best Sessions	Square roots and exponents Learn the basics of square roots and how exponents work.
	Listen and Learns	
	Interactive Tutorials	
BEDMAS	Best Sessions	Long Division - Remembering the steps in long division Learn to use long division.
	Listen and Learns	Order of Operations (BEDMAS) Runtime: 22min
	Interactive Tutorials	
Percentage	Best Sessions	Percent = Find 25% of 500 Find 25% of 500.
	Listen and Learns	
	Interactive Tutorials	Percentages
Ratio	Best Sessions	
	Listen and Learns	Ratio Runtime: 37min
	Interactive Tutorials	

Measurement

Big Idea	Resource Type	Session Title
Metric unit conversion	Best Sessions	
	Listen and Learns	
	Interactive Tutorials	
Area and surface area (trapezoid)	Best Sessions	<p>Area of a trapezoid How to use a formula to find the area of a trapezoid</p> <p>Rectangle - Area and perimeter Use formulas to find the area and perimeter of a rectangle</p> <p>Area of a shaded figure using a grid, not formulas Find the area of the shaded figure.</p> <p>Area of Composite shapes Find the area of an irregular polygon.</p>
	Listen and Learns	
	Interactive Tutorials	
Volume (prism)	Best Sessions	
	Listen and Learns	
	Interactive Tutorials	Volume Calculation
Circumference of circle	Best Sessions	<p>Circles: Find the circumference Find the circumference of a circle given the radius.</p>
	Listen and Learns	
	Interactive Tutorials	

Geometry and Spatial Sense

Big Idea	Resource Type	Session Title
Parallel, perpendicular, intersecting lines	Best Sessions	
	Listen and Learns	
	Interactive Tutorials	
Angle Properties	Best Sessions	Reflex angles Learn how to find a reflex angle.
	Listen and Learns	
	Interactive Tutorials	
Rotation of objects	Best Sessions	Rotations: Rotate triangle ABC 90 degrees CW around the origin Use the whiteboard to learn how to rotate shapes clockwise and counter-clockwise.
	Listen and Learns	
	Interactive Tutorials	
Graphing in 4 quadrants	Best Sessions	
	Listen and Learns	The Cartesian Grid Runtime 32min
	Interactive Tutorials	The XY-Plane

Patterning and Algebra

Big Idea	Resource Type	Session Title
Patterns algebraically	Best Sessions	<p>Algebra and patterning: Describe how the # of circles (or term value) is related to the figure # (or term #) (AUDIO)</p> <p>Learn how to find an expression using a T-chart.</p> <p>How to create a pattern rule for 6, 8, 10, 12.</p> <p>Creating a pattern rule can seem like guessing, but this strategy will help you learn to solve most patterns.</p> <p>Patterns: Find the pattern rule for: 6, 6, 12, 18, 20</p> <p>Complete the next three terms in this pattern: 6, 6, 12, 18, 20. Patterns and Exponents - How do I find the 16th term of this pattern? 1,2,4,8,16</p> <p>Find the expression for this pattern: 1, 2, 4, 8, 16.</p>
	Listen and Learns	
	Interactive Tutorials	
Solving algebra	Best Sessions	
	Listen and Learns	<p>Solving One-Step Equations</p> <p>Runtime: 27</p>
	Interactive Tutorials	
Solving linear equations	Best Sessions	
	Listen and Learns	<p>Order of Operations (BEDMAS)</p> <p>Runtime: 22min</p> <p>Integers - Adding and Subtracting</p> <p>Runtime:47</p>
	Interactive Tutorials	

Data Management and Probability

Big Idea	Resource Type	Session Title
Data organization	Best Sessions	
	Listen and Learns	The Cartesian Grid Runtime 32min
	Interactive Tutorials	Word Problems: Using a Logic Box Word Problems: Using a Table
Frequency tables and graphs	Best Sessions	
	Listen and Learns	
	Interactive Tutorials	Word Problems: Using a Table
Probability and Theoretical Probability	Best Sessions	
	Listen and Learns	Ratio
	Interactive Tutorials	Word Problems: Finding a Pattern