

**GRADE 8 GLE'S**

	<b>Number &amp; Operations (N &amp; O)</b>	<b>Geometry &amp; Measurement (G &amp; O)</b>
8-1	<u>Rational Numbers</u> <ul style="list-style-type: none"> <li>• percent increase &amp; decrease as a way to describe change</li> </ul>	(tested in a previous grade)
8-2	<u>Relative Magnitude of Numbers</u> <ul style="list-style-type: none"> <li>• order/compare               <ul style="list-style-type: none"> <li>▪ common irrational numbers (<math>\sqrt{2}</math>, <math>\Pi</math>)</li> <li>▪ numbers with fractional bases</li> <li>▪ square roots</li> </ul> </li> </ul>	<u>Apply Pythagorean Thm.</u> <ul style="list-style-type: none"> <li>• find missing side</li> <li>• solve word problems</li> </ul>
8-3	(tested in a previous grade)	(tested in a previous grade)
8-4	<u>Solve problems involving proportional reasoning</u> <ul style="list-style-type: none"> <li>• percent increase &amp; decrease</li> <li>• interest rates &amp; mark-ups</li> <li>• square, cubes, square &amp; cubed roots</li> </ul>	(tested in a previous grade)
8-5	(tested in a previous grade)	<u>Similarity</u> <ul style="list-style-type: none"> <li>• impact of scaling on surface area &amp; volume when dimensions are multiplied by a constant factor</li> <li>• determine length of the sides of similar triangles</li> <li>• solve problems involving growth &amp; rate</li> </ul>
8-6	(tested in a previous grade)	<u>Surface Area &amp; Volume</u> <ul style="list-style-type: none"> <li>• cylinders &amp; pyramids</li> <li>• use appropriate units</li> </ul>

	Functions & Algebra (F & A)	Data, Statistics, Probability (DSP)
8-1	<u>Identifies/extends patterns</u> <ul style="list-style-type: none"> <li>generalizes a nonlinear relationship using words/symbols</li> <li>generalizes common nonlinear relationships to find a specific case</li> </ul>	<u>Interprets</u> <ul style="list-style-type: none"> <li>scatter plots</li> <li>box &amp; whisker plots</li> </ul> } to analyze data to formulate or justify conclusions, make predictions or solve problems
8-2	<u>Linear relationships (<math>y=kx</math>; <math>y=mx+b</math>)</u> <ul style="list-style-type: none"> <li>informally/formally determines slopes &amp; intercepts represented in graph/table/ probl. solv. situations</li> <li>describes meaning of slope &amp; intercept in context</li> <li>distinguished between linear (constant chg) &amp; nonlinear (varying chg) represented in graph/table/ probl. solv. situations</li> <li>describe how chg in values of 1 variable relates to chg in value of 2<sup>nd</sup> variable in probl. involving varying rates</li> </ul>	<u>Analyzes</u> <ul style="list-style-type: none"> <li>patterns, trends or distributions using <ul style="list-style-type: none"> <li>quartile values</li> <li>estimated line of best fit</li> </ul> </li> <li>evaluates sample from which statistics were developed <ul style="list-style-type: none"> <li>random</li> <li>non-random</li> </ul> </li> </ul>
8-3	<u>Algebraic Expressions</u> <ul style="list-style-type: none"> <li>simplify algebraic expression - including sq. roots, whole number exponents or rational number</li> </ul>	<u>Organized / Displays Data</u> <ul style="list-style-type: none"> <li>scatter plots <ul style="list-style-type: none"> <li>to answer questions</li> <li>analyze data (see 8-1)</li> <li>identify representations that best display data</li> </ul> </li> </ul>
8-4	<u>Equality</u> <ul style="list-style-type: none"> <li>show equivalence between 2 expressions (solve equations)</li> <li>solve formulas for a variable requiring 1 transformation (ex. <math>D = rt</math> <math>r = d/t</math>)</li> <li>solve multi-step linear equations w/ integer coefficients</li> <li>show 2 expressions are or are not equal by commutative, associative, distributive properties, order of ops, substitution</li> <li>informally solve systems of linear equations in context</li> </ul>	<u>Counting Technique</u> <ul style="list-style-type: none"> <li>permutations using various strategies</li> </ul>
8-5	(tested in a previous grade)	(tested in a previous grade)
8-6	(tested in a previous grade)	(tested in a previous grade)