

## MATHEMATICS

### Math Seminar

Grades 9-12		
<p><b>1. Students solve one variable linear algebraic equations.</b></p> <p><b>4. Students participate in an apartment living simulation.</b></p> <p style="padding-left: 20px;">4.1 Students can balance a simple checkbook page.</p> <p style="padding-left: 20px;">4.2 Students are able to decipher apartment advertisements.</p> <p style="padding-left: 20px;">4.3 Students prepare monthly and yearly budgets using a computer spreadsheet program.</p> <p><b>7. Students are proficient in basic calculator skills (e.g., square roots, cube roots, exponents, reciprocals, percents, etc.).</b></p> <p><b>10. Students are able to solve logic problems using a variety of methods (e.g., grids, charts, etc.).</b></p>	<p><b>2. Students evaluate basic functions for given inputs.</b></p> <p><b>5. Students determine the unit price of an item (e.g., if a six-pack of soda costs \$1.50, the unit price is \$ .25).</b></p> <p><b>8. Students can create a modified geometric shape and can tessellate eight or more shapes on a page.</b></p> <p><b>11. Students organize and represent data.</b></p> <p style="padding-left: 20px;">11.1 Know various forms of display for data sets, including a stem-and-leaf plot or box-and-whisker plot; use them to display a single set of data or compare two sets of data.</p> <p style="padding-left: 20px;">11.2 Represent two numerical variable on a scatter plot and informally describe how the data points are distributed and whether there is an apparent relationship between the two variables (e.g., time spent on homework and grade level).</p>	<p><b>3. Students can find the next term in arithmetic, geometric, and simple recursive sequences.</b></p> <p><b>6. Students calculate sales tax and restaurant service tips.</b></p> <p><b>9. Students can decipher cryptograms (e.g., QBMARU QYCKR = MICKEY MOUSE).</b></p> <p><b>12. Students recognize similar triangles and are able to use the concept of corresponding parts of congruent triangles.</b></p>

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<p>13. Students use knowledge of similar triangles to estimate heights of objects like trees or poles.</p>	<p>11.3 Understand the meaning of and be able to compute the minimum, the lower quartile, the median the upper quartile and the maximum of a data set.</p> <p>14. Students perform basic constructions with straightedge and compass such as angle bisectors, perpendicular bisectors, and circles inscribed in triangles.</p>	