

**7<sup>th</sup> Grade ISAT Integration MATH**

<b>MATH FOCUS</b>	<i>ISAT Sample Items—Use as models to create math challenges.</i>
<p><b>Operations, Number Value, Probability</b></p>	<p>Several students bought pencils to share equally. How many pencils did they buy?</p> <p>Mike has 2 red apples and 3 green in his bag. He takes 2 apples. What is the probability that he takes 2 red?</p> <p>A restaurant has 5 different hamburgers and 4 different drinks. How many combinations are possible?</p> <p>Toby divides 12.9 by 8.6. His answer is 1.5 How can he check his answer?</p>
<p><b>Fractions, Decimals, Percentages</b></p>	<p>Jo needs an 85% average on her five math tests. She earned xx, xx, xx and xx on her first four tests. What score must she earn on her fifth test to have an average of exactly 85% for all five tests?</p> <p>There are 18 girls in a class. The ratio of girls to boys in the class is 3 to 2. How many boys are in the class</p>
<p><b>Analyzing Graphs and Data</b></p>	<p>The table shows the pattern between the number of ___ and the number of ___. Which can be used to find the number of ___ needed for n ___?</p> <p>Which point is at (3, -2)</p> <p>Points K, L, and M are vertices on rectangle KLMN. What are the coordinates of vertex N?</p> <p>Which set of bars represents the data in the circle graph?</p> <p>Which graph shows a line of best fit?</p>
<p><b>Algebra</b></p>	<p>Which is equal to <math>3x + 5 + x + 10 + 2y</math>?</p> <p>Which inequality represents the graph?</p> <p>What value of x makes the inequality true?</p> <p>A cheese pizza costs \$6. Each topping costs \$.85. Which gives the cost of a cheese pizza with t toppings?</p> <p>Jen uses two steps to multiply <math>7(52)</math>. What property is she using?</p> <p>Which is equal to <math>5(2a + 9)</math>?</p>
<p><b>Geometry and Measurement</b></p>	<p>Use your ruler to help you answer this question. Which is the perimeter of triangle PQR?</p> <p>What is the area of the polygon?</p> <p>What is the area of the square in square feet?</p> <p>What is the surface of this rectangular prism?</p> <p>Points M, N, Q, Z and X are all on circle P. Which represents the diameter?</p> <p>The dimensions of rectangle N are <math>\frac{1}{2}</math> of rectangle M. Which must be true of the two angles?</p> <p>Triangle PQT is similar to triangle PRS. What is the length of SR?</p>