


Math To Know

Grade 5


Mathematics Aim: Use Patterns to Solve Problems




5th Grade Big Idea: Understanding relationships between decimals, fractions, percents


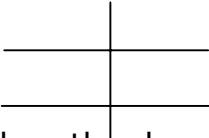
Concept	Sample	Notes					
I. Numeration/Number Sense							
1. Count by 1000's to 1 million Date Taught <table border="1" data-bbox="293 800 581 892"><tr><td></td><td></td><td></td><td></td><td></td></tr></table>						Count for me 1000, 2000, 3000, ____	
2. Place value to hundred billions Date Taught <table border="1" data-bbox="293 1073 581 1163"><tr><td></td><td></td><td></td><td></td><td></td></tr></table>						What place is the 7 in? 101,871,961	
3. Represent numerals in expanded notation to hundred billions Date Taught <table border="1" data-bbox="293 1329 581 1421"><tr><td></td><td></td><td></td><td></td><td></td></tr></table>						Write 826,097,061,931 in expanded notation.	
4. Read, write and compare whole numbers to hundred billions Date Taught <table border="1" data-bbox="293 1602 581 1692"><tr><td></td><td></td><td></td><td></td><td></td></tr></table>						Write the number 8 million, 7 hundred thousand, 2 tens.	


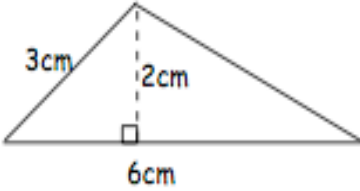

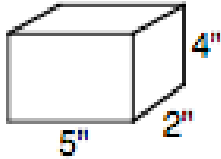
Concept					Sample	Notes
5. Read, write and compare fractions					Kelly has $\frac{1}{3}$ of a snickerdoodle, $\frac{1}{4}$ of a chocolate chip cookie, and $\frac{1}{2}$ of a sugar cookie. Which cookie amount is the smallest?	Wr
Date Taught						
6. Read, write and compare decimals to thousandths					Write the decimal 1.972?	
Date Taught						
7. Divisibility rules: 3, 6, 9					Write the divisibility rule for 9 and then give an example of how the rule is used.	
Date Taught						
8. Determine equivalences among fractions, decimals and percents (=, <, >)					Use the correct sign in between each fraction. $\frac{1}{6}$ <input type="checkbox"/> $\frac{2}{3}$ <input type="checkbox"/> $\frac{4}{9}$	
Date Taught						
9. Identify prime and composite numbers, factors and multiples.					What are all the factors of 144.	
Date Taught						



Concept	Sample	Notes
II. Computatation and Estimation		
1. Estimating whole numbers to hundred billions <small>Date Taught?</small>	Round 3,073,882,100 to the nearest hundred millions.	
2. Estimating mixed numbers <small>Date Taught?</small>	Estimate: $7\frac{4}{5} + 4\frac{3}{5}$	
3. Add fractions: proper and mixed numbers with uncommon denominators <small>Date Taught?</small>	Solve: $3\frac{4}{5} + 2\frac{7}{10} =$	
4. Subtraction fractions: proper and mixed numbers with uncommon denominators <small>Date Taught?</small>	Solve: $8\frac{2}{3} - 1\frac{3}{8}$	
5. Multiply fractions: proper and mixed numbers with uncommon denominators <small>Date Taught?</small>	What is the value of $10 \times 3/100$	

Concept	Sample	Notes
6. Divide fractions: proper and mixed numbers with uncommon denominators	Solve: $2\frac{4}{5} \div 2\frac{12}{15}$	
Date Taught?		
7. Simplify improper fractions as a mixed number	Simplify $\frac{45}{16}$	
Date Taught?		
8. Multiply and divide decimals	Multiply 16.06×3.45	
Date Taught?		
9. Solve word problems with the correct operation	On the first Saturday in May, each of 16 students of a 5th grade class worked 2.5 hours planting flowers and bushes around their school. Their teacher, Mr. West worked 4 hours. $16 \square 2.5 \square 4$ What operations could be used in the squares above to find the total number of hours that were worked?	
Date Taught?		

Concept	Sample	Notes
10. Solve problems involving ratios and percents <small>Date Taught?</small> 	Luis needs to measure out $\frac{3}{4}$ lb. of sugar for a cake recipe that he is making. Unfortunately, he has a scale that only shows the decimal value of weight. What is the decimal equivalent of $\frac{3}{4}$ lb.?	
III. Measurement		
1. Select customary units of: weight and capacity <small>Date Taught?</small> 	Isaac and Alieah have put 6 quarts of water into a fish tank. The tank has a capacity of 4 gallons. How many more quarts of water do they need to fill the tank? A. 24 quarts B. 10 quarts C. 12 quarts D. 2 gallons	
2. Select metric units of: mass and capacity <small>Date Taught?</small> 	Choose the most reasonable unit of mass to weigh a paper clip, a stamp, or a grain of rice. A. liters B. meters C. milligrams D. kilograms	

Concept	Sample	Notes
3. Measure elapsed time <small>Date Taught?</small> <div style="display: flex; border: 1px solid black; width: 100px; height: 20px; margin-top: 5px;"> <div style="text-align: center; width: 25%;"></div> <div style="width: 25%;"></div> <div style="width: 25%;"></div> <div style="width: 25%;"></div> </div>	Ivonne wants to call her cousin, Juana, in Los Angeles to wish her a happy birthday, but there is a three-hour time difference. Ivonne made her call at 3:42 P.M. If it is earlier in Los Angeles, what time was it when Juana answered the telephone?	
4. Convert measures in: U.S. Customary System and Metric System <small>Date Taught?</small> <div style="display: flex; border: 1px solid black; width: 100px; height: 20px; margin-top: 5px;"> <div style="width: 25%;"></div> <div style="width: 25%;"></div> <div style="width: 25%;"></div> <div style="width: 25%;"></div> </div>	How many centimeters in 100 mm x 1,000 mm?	
IV. Geometry		
1. Identify lines a. Parallel b. Perpendicular c. Intersecting d. Horizontal e. Vertical <small>Date Taught?</small> <div style="display: flex; border: 1px solid black; width: 100px; height: 20px; margin-top: 5px;"> <div style="width: 25%;"></div> <div style="width: 25%;"></div> <div style="width: 25%;"></div> <div style="width: 25%;"></div> </div>	In Geometry class, Dakota was asked to follow these directions: 1. Draw a horizontal line 2. Draw 2 lines perpendicular to the first line segment. This is what he drew. <div style="text-align: center; margin: 10px 0;">  </div> Based on the drawing, what did Dakota do wrong?	

Concept	Sample	Notes
2. Identify Angles a. Acute b. Obtuse c. Right d. Interior e. Exterior	What angle is formed by the hands of a clock when it is 11:40 p.m.? 	
Date Taught?		
3. Use formulas to calculate area: triangles, rectangles and parallelograms	What is the area of this triangle? 	
Date Taught? 		
4. Use formulas to calculate volume: rectangle prisms	What is the volume of this rectangular prism? 	
Date Taught?		
V. Data Analysis and Probability		
1. Read and interpret tables, charts and graphs a. Histogram b. Stem and Leaf Plots c. Venn Diagrams	Draw a Venn Diagram and explain what it means. Josh 2, 4, 5, 12, 15, 16 Adriana 2, 3, 5, 6, 10, 15 Patty 2, 3, 4, 5, 7, 8, 10	
Date Taught?		

Concept	Sample	Notes
2. Draw and compare different graphs	Draw a bar and a line graph using these cities temperatures Dallas 75, 83, 65, 90 Cozad 65, 76, 53, 89 Omaha 68, 77, 65, 90 Which graph is the correct one to use and why.	
Date Taught? 		
3. Compute mean, median, mode and range	DJ scored 90, 80, 80, 70, 60, and 50 on his spelling tests. What was mean, median, mode and range for this data.	
Date Taught?		
VI. Algebraic Concepts		
1. Formulate an equation with unknown variables to solve a word problem	Shay is twice as old as Laura. In 2 years Laura will be twice as old as Jane is now. Shay is 20. How old is Jane.	
Date Taught? 		
2. Label on a number line: decimals, fractions, mixed numbers, positive and negative numbers	Draw a number and label $\frac{3}{4}$, $2\frac{1}{4}$, 7 -4, -6, -1.5,	
Date Taught?		

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