



Volumes 1 and 2  
Grade 5

© 2013

STANDARDS	PAGE REFERENCES
<b>Number &amp; Operation</b>	
Divide multi-digit numbers; solve real-world and mathematical problems using arithmetic.	
<p>5.1.1.1</p> <p>Divide multi-digit numbers, using efficient and generalizable procedures, based on knowledge of place value, including standard algorithms. Recognize that quotients can be represented in a variety of ways, including a whole number with a remainder, a fraction or mixed number, or a decimal.</p> <p><i>For example:</i> Dividing 153 by 7 can be used to convert the improper fraction <math>\frac{153}{7}</math> to the mixed number <math>21\frac{6}{7}</math>.</p>	<p><b>Student Edition:</b> 263-268, 271-276, 277-282, 289-290, 291-294</p> <p><b>Teacher Edition:</b> MM 263B; MMW 263-264, 271-272, 277-278; TP 267-268</p>

STANDARDS	PAGE REFERENCES
<p>5.1.1.2</p> <p>Consider the context in which a problem is situated to select the most useful form of the quotient for the solution and use the context to interpret the quotient appropriately.</p> <p><i>For example:</i> If 77 amusement ride tickets are to be distributed equally among 4 children, each child will receive 19 tickets, and there will be one left over. If \$77 is to be distributed equally among 4 children, each will receive \$19.25, with nothing left over.</p>	<p><b>Student Edition:</b> 221-224, 225-226, 227-230, 231-232</p> <p><b>Teacher Edition:</b> 231A; MM 221-222; RC 225-226</p>
<p>5.1.1.3</p> <p>Estimate solutions to arithmetic problems in order to assess the reasonableness of results.</p>	<p><b>Student Edition:</b> 251-254, 255-256, 269-270</p> <p><b>Teacher Edition:</b> 255A, 270A, 271A; MMW 251; TP 255-256, 269-270</p>
<p>5.1.1.4</p> <p>Solve real-world and mathematical problems requiring addition, subtraction, multiplication and division of multi-digit whole numbers. Use various strategies, including the inverse relationships between operations, the use of technology, and the context of the problem to assess the reasonableness of results.</p> <p><i>For example:</i> The calculation <math>117 \div 9 = 13</math> can be checked by multiplying 9 and 13.</p>	<p><b>Student Edition:</b> 131-134, 135-136, 137-140, 141-142, 143-148, 157-160, 161-162, 169-172, 173-174, 201-204, 205-206</p> <p><b>Teacher Edition:</b> 135A, 137B, 141A, 161A, 173A, 205A, 208A; FA 161-162; MMW 131-132, 137-138, 157-158, 169-170</p>
<p>Read, write, represent and compare fractions and decimals; recognize and write equivalent fractions; convert between fractions and decimals; use fractions and decimals in real-world and mathematical situations.</p>	
<p>5.1.2.1</p> <p>Read and write decimals using place value to describe decimals in terms of groups from millionths to millions.</p> <p><i>For example:</i> Possible names for the number 0.0037 are:    37 ten thousandths                   3 thousandths + 7 ten thousandths; a possible name for the number 1.5 is 15 tenths.</p>	<p><b>Student Edition:</b> 11-14, 15-16, 23-28, 29-32, 33-36, 37-42, 43-46, 47-48</p> <p><b>Teacher Edition:</b> 15A, 33A, 36A, 47A; MM 43B; MMW 11-12, 29-30</p>

STANDARDS	PAGE REFERENCES
<p>5.1.2.2 Find 0.1 more than a number and 0.1 less than a number. Find 0.01 more than a number and 0.01 less than a number. Find 0.001 more than a number and 0.001 less than a number.</p>	<p><b>Student Edition:</b> 37-38, 39-42, 44-46, 47-48 <b>Teacher Edition:</b> 47A; MMW 43-44; TP 47-48</p>
<p>5.1.2.3 Order fractions and decimals, including mixed numbers and improper fractions, and locate on a number line.</p> <p><i>For example:</i> Which is larger 1.25 or <math>\frac{6}{5}</math> ?</p> <p><i>Another example:</i> In order to work properly, a part must fit through a 0.24 inch wide space. If a part is <math>\frac{1}{4}</math> inch wide, will it fit?</p>	<p><b>Student Edition:</b> 55-58, 59-60, 583-586 <b>Teacher Edition:</b> 59A, 587A; MM 583B; MMW 55-56, 583-584</p>
<p>5.1.2.4 Recognize and generate equivalent decimals, fractions, mixed numbers and improper fractions in various contexts.</p> <p><i>For example:</i> When comparing 1.5 and <math>\frac{19}{12}</math>, note that <math>1.5 = 1\frac{1}{2} = 1\frac{6}{12} = \frac{18}{12}</math>, so <math>1.5 &lt; \frac{19}{12}</math>.</p>	<p><b>Student Edition:</b> 589-594, 595-598, 599-600 <b>Teacher Edition:</b> 599A; MM 589A; MMW 595-596; TP 599-600</p>
<p>5.1.2.5 Round numbers to the nearest 0.1, 0.01 and 0.001.</p> <p><i>For example:</i> Fifth grade students used a calculator to find the mean of the monthly allowance in their class. The calculator display shows 25.80645161. Round this number to the nearest cent.</p>	<p><b>Student Edition:</b> 303-306, 307-308, 309-312, 313-314 <i>Problem-Solving Investigation</i> 315-318 <b>Teacher Edition:</b> 307A, 309A, 313A, 319A; MMW 303-304, 309-310; TP 307-308</p>
<p>Add and subtract fractions, mixed numbers and decimals to solve real-world and mathematical problems.</p>	
<p>5.1.3.1 Add and subtract decimals and fractions, using efficient and generalizable procedures, including standard algorithms.</p>	<p><b>Student Edition:</b> 335-338, 340-341, 361-364, 365-366, 619-622, 623-624, 625-628, 629-630, 637-640, 641-642, 651-654, 655-656 <b>Teacher Edition:</b> 339A, 365A, 623A, 629A, 641A, 655A; MMW 335-336, 361-362, 619-620, 625-626, 637-638, 651-652</p>

STANDARDS	PAGE REFERENCES
<p>5.1.3.2</p> <p>Model addition and subtraction of fractions and decimals using a variety of representations.</p> <p><i>For example:</i> Represent <math>\frac{2}{3} + \frac{1}{4}</math> and <math>\frac{2}{3} - \frac{1}{4}</math> by drawing a rectangle divided into 4 columns and 3 rows and shading the appropriate parts or by using fraction circles or bars.</p>	<p><b>Student Edition:</b> 323-326, 327-328, 329-332, 333-334, 349-352, 353-354, 355-358, 359-360, 631-634, 635-636, 645-648, 649-650, 671-674, 675-676</p> <p><b>Teacher Edition:</b> 329A, 349A, 355A, 631A, 651B, 671A; BI 349-350, 355-356; TI 349-350, 355-356</p>
<p>5.1.3.3</p> <p>Estimate sums and differences of decimals and fractions to assess the reasonableness of results.</p> <p><i>For example:</i> Recognize that <math>12\frac{2}{5} - 3\frac{3}{4}</math> is between 8 and 9 (since <math>\frac{2}{5} &lt; \frac{3}{4}</math>).</p>	<p><b>Student Edition:</b> 661-662, 663-666, 669-670</p> <p><i>Problem-Solving Investigation</i> 657-660</p> <p><b>Teacher Edition:</b> 661A, 667A, 670A; LS 657-658; MMW 663-664; PS 657-658</p>
<p>5.1.3.4</p> <p>Solve real-world and mathematical problems requiring addition and subtraction of decimals, fractions and mixed numbers, including those involving measurement, geometry and data.</p> <p><i>For example:</i> Calculate the perimeter of the soccer field when the length is 109.7 meters and the width is 73.1 meters.</p>	<p><b>Student Edition:</b> 335-338, 340-341, 361-364, 365-366, 619-622, 623-624, 625-628, 629-630, 637-640, 641-642, 651-654, 655-656</p> <p><b>Teacher Edition:</b> 339A, 365A, 623A, 629A, 641A, 655A; MMW 335-336, 361-362, 619-620, 625-626, 637-638, 651-652</p>
<p><b>Algebra</b></p>	
<p>Recognize and represent patterns of change; use patterns, tables, graphs and rules to solve real-world and mathematical problems.</p>	
<p>5.2.1.1</p> <p>Create and use rules, tables, spreadsheets and graphs to describe patterns of change and solve problems.</p> <p><i>For example:</i> An end-of-the-year party for 5<sup>th</sup> grade costs \$100 to rent the room and \$4.50 for each student. Know how to use a spreadsheet to create an input-output table that records the total cost of the party for any number of students between 90 and 150.</p>	<p><b>Student Edition:</b> 513-516, 517-518, 531-534, 535</p> <p><b>Teacher Edition:</b> 517A, 535A; MMW 513-514, 531-532</p>

STANDARDS	PAGE REFERENCES
<p>5.2.1.2</p> <p>Use a rule or table to represent ordered pairs of positive integers and graph these ordered pairs on a coordinate system.</p>	<p><b>Student Edition:</b> 519-522, 523-524, 525-528, 529-530, 531-534, 535-536</p> <p><i>Review</i> 537-540</p> <p><b>Teacher Edition:</b> 529A, 531A, 531B, 535A; MMW 531-532</p>
<p>Use properties of arithmetic to generate equivalent numerical expressions and evaluate expressions involving whole numbers.</p>	
<p>5.2.2.1</p> <p>Apply the commutative, associative and distributive properties and order of operations to generate equivalent numerical expressions and to solve problems involving whole numbers.</p> <p><i>For example:</i> Purchase 5 pencils at 19 cents and 7 erasers at 19 cents. The numerical expression is <math>5 \times 19 + 7 \times 19</math> which is the same as <math>(5 + 7) \times 19</math>.</p>	<p><b>Student Edition:</b> 113-116, 117-118, 119-122, 123-124, 341-344, 345-346, 347-348, 423-426, 427-428, 487-490, 491-492, 493-496, 497-498</p> <p><b>Teacher Edition:</b> 113A, 119A, 123A, 341A, 345A, 423A, 427A, 487A, 491A, 497A; MMW 119-120, 341-342, 423-424, 487-488</p>
<p>Understand and interpret equations and inequalities involving variables and whole numbers, and use them to represent and solve real-world and mathematical problems.</p>	
<p>5.2.3.1</p> <p>Determine whether an equation or inequality involving a variable is true or false for a given value of the variable.</p> <p><i>For example:</i> Determine whether the inequality <math>1.5 + x &lt; 10</math> is true for <math>x = 2.8</math>, <math>x = 8.1</math>, or <math>x = 9.2</math>.</p>	<p>This standard falls outside the scope of this text. See <i>Glencoe Math</i> Course 1 © 2013.</p>
<p>5.2.3.2</p> <p>Represent real-world situations using equations and inequalities involving variables. Create real-world situations corresponding to equations and inequalities.</p> <p><i>For example:</i> <math>250 - 27 \times a = b</math> can be used to represent the number of sheets of paper remaining from a packet of 250 sheets when each student in a class of 27 is given a certain number of sheets.</p>	<p><b>Student Edition:</b> 266 #17, 268 #7, 274 #16, 280 #15, #17, 282 #6</p>

STANDARDS	PAGE REFERENCES
<p>5.2.3.3 Evaluate expressions and solve equations involving variables when values for the variables are given.</p> <p><i>For example:</i> Using the formula, <math>A = \ell w</math>, determine the area when the length is 5, and the width 6, and find the length when the area is 24 and the width is 4.</p>	<p><b>Student Edition:</b> 265 #11-#13, 266 #17, 270 #14, 273 #11-#13, 276 #4-#6, 279 #11-#13</p>
<p><b>Geometry &amp; Measurement</b></p>	
<p>Describe, classify, and draw representations of three-dimensional figures.</p>	
<p>5.3.1.1 Describe and classify three-dimensional figures including cubes, prisms and pyramids by the number of edges, faces or vertices as well as the types of faces.</p>	<p><b>Student Edition:</b> 941-944, 847-948, 949-952, 953-954</p> <p><b>Teacher Edition:</b> 941A, 945A; BI 949-950; FA 945-946; MM 949A; MMW 941-942</p>
<p>5.3.1.2 Recognize and draw a net for a three-dimensional figure.</p>	<p><b>Student Edition:</b> 935-938, 939-940</p> <p><b>Teacher Edition:</b> 935A; BI 935-936; TI 935-936</p>
<p>Determine the area of triangles and quadrilaterals; determine the surface area and volume of rectangular prisms in various contexts.</p>	
<p>5.3.2.1 Develop and use formulas to determine the area of triangles, parallelograms and figures that can be decomposed into triangles.</p>	<p>This standard falls outside the scope of this text. See <i>Glencoe Math</i> Course 1 © 2013.</p>
<p>5.3.2.2 Use various tools and strategies to measure the volume and surface area of objects that are shaped like rectangular prisms.</p> <p><i>For example:</i> Use a net or decompose the surface into rectangles.</p> <p><i>Another example:</i> Measure the volume of a cereal box by using a ruler to measure its height, width and length, or by filling it with cereal and then emptying the cereal into containers of known volume.</p>	<p><b>Student Edition:</b> 955-958, 959-960</p> <p><b>Teacher Edition:</b> 959A; FA 959-960; MMW 955-956</p>

STANDARDS	PAGE REFERENCES
<p>5.3.2.3</p> <p>Understand that the volume of a three-dimensional figure can be found by counting the total number of same-sized cubic units that fill a shape without gaps or overlaps. Use cubic units to label volume measurements.</p> <p><i>For example:</i> Use cubes to find the volume of a small box.</p>	<p><b>Student Edition:</b> 949-952, 953-954, 961-964, 965-966</p> <p><b>Teacher Edition:</b> BI 949-950; FA 953-954, 965-966; MM 955B; TI 949-950</p>
<p>5.3.2.4</p> <p>Develop and use the formulas <math>V = lwh</math> and <math>V = Bh</math> to determine the volume of rectangular prisms. Justify why base area <math>B</math> and height <math>h</math> are multiplied to find the volume of a rectangular prism by breaking the prism into layers of unit cubes.</p>	<p><b>Student Edition:</b> 949-952, 953-954, 961-964, 965-966</p> <p><b>Teacher Edition:</b> BI 949-950; FA 953-954, 965-966; MM 955B; TI 949-950</p>
<p><b>Data Analysis</b></p>	
<p>Display and interpret data; determine mean, median and range.</p>	
<p>5.4.1.1</p> <p>Know and use the definitions of the mean, median and range of a set of data. Know how to use a spreadsheet to find the mean, median and range of a data set. Understand that the mean is a "leveling out" of data.</p> <p><i>For example:</i> The set of numbers 1, 1, 4, 6 has mean 3. It can be leveled by taking one unit from the 4 and three units from the 6 and adding them to the 1s, making four 3s.</p>	<p>This standard falls outside the scope of this text. See <i>Glencoe Math Course 1</i> © 2013.</p>
<p>5.4.1.2</p> <p>Create and analyze double-bar graphs and line graphs by applying understanding of whole numbers, fractions and decimals. Know how to create spreadsheet tables and graphs to display data.</p>	<p><b>Student Edition:</b> 531-534, 535-536, 845-848, 849-850</p> <p><b>Teacher Edition:</b> 535A, 849A; MMW 531-532, 845-846</p>