



IMPACT MATHEMATICS

Algebra and More

Course 1

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STANDARDS	PAGE REFERENCES
1. Place Value	
A. Solve problems involving 100, 1,000 or 10,000 MORE/LESS and 0.1 MORE/LESS than a given number.	Student Edition: 112-117 Teacher's Guide: T112-T117
B. Identify alternative forms of expressing whole numbers <10,000 using expanded notation and regrouping.	Student Edition: 81, 498-500, 501-503 Teacher's Guide: T498-T500, T501-T503
C. Use place value concepts to identify and compare the magnitude and value of digits in numbers.	Student Edition: 113-117 <i>On Your Own Exercises</i> 111, #47-#51 Teacher's Guide: T113-T117
2. Pictorial Representation of Numbers	
A. Relate fractions, mixed numbers, decimals and percents to their pictorial representations and vice versa.	Student Edition: 96, 97-98, 112, 113-117, 236-239 <i>On Your Own Exercises</i> 243-246 Teacher's Guide: T96, T97-T98, T112, T113-T117, T237, T238, T247

STANDARDS	PAGE REFERENCES
<p>B. Identify and/or shade fractional parts of regions or sets, decimals (tenths and hundredths) and mixed numbers in pictures.</p>	<p>Student Edition: 97-98, 99-101, 102-103, 104-105, 112, 113-117 <i>On Your Own Exercises</i> 106-110</p> <p>Teacher’s Guide: T97-T98, T99-T101, T102-T103, T104-T105, T112, T113-T117</p>
<p>3. Equivalent Fractions, Decimals and Percents</p>	
<p>A. Rename equivalent fractions and mixed numbers.</p>	<p>Student Edition: 99-101, 102-103 <i>On Your Own Exercises</i> 106-107 #6-#21, 108-109 #37-#41</p> <p>Teacher’s Guide: T99-T101, T102-T103</p>
<p>B. Rename improper fractions and mixed numbers as equivalent decimals and vice versa.</p>	<p>Student Edition: 128-131, 131-134, 134-136 <i>On Your Own Exercises</i> 137-140 <i>Review and Self-Assessment</i> 149, 151 #42-#49</p> <p>Teacher’s Guide: T128-T131, T131-T134, T134-T136</p>
<p>4. Order, Magnitude and Rounding of Numbers</p>	
<p>A. Order whole numbers up to 6 digits and decimals (tenths and hundredths).</p>	<p>Student Edition: 113-117</p> <p>Teacher’s Guide: T113-T117</p>
<p>B. Order mixed numbers, fractions and decimals.</p>	<p>Student Edition: 99-101, 102-103, 120-122, 128-131, 131-134 <i>On Your Own Exercises</i> 124 #24-#26, 137-140</p> <p>Teacher’s Guide: T101, T103, T105, T111, T114, T122, T130, T131, T134</p>
<p>C. Describe magnitude of whole numbers up to 6 digits and decimals (tenths and hundredths).</p>	<p>Student Edition: 113-117 <i>On Your Own Exercises</i> 123-126</p> <p>Teacher’s Guide: T113-T117</p>

STANDARDS	PAGE REFERENCES
D. Describe magnitude of fractions and mixed numbers.	Student Edition: 97-98, 102-103 <i>On Your Own Exercises</i> 106 Teacher's Guide: T97-T98, T102-T103
E. Round whole numbers up to 6 digits, fractions and decimals in context.	Student Edition: 104-105, 128-131 <i>On Your Own Exercises</i> 107 #30-#34 Teacher's Guide: T104-T105, T128-T131
F. Identify points on number lines and scales, including fractions, decimals and integers.	Student Edition: 142-145 <i>On Your Own Exercises</i> 146-147 <i>Review and Self-Assessment</i> 150-151 Teacher's Guide: T142, T144, T145
G. Locate points on number lines and scales, including fractions, decimals and integers.	Student Edition: 96, 98, 128-131, 142-145 <i>On Your Own Exercises</i> 106 #4, 137 #3, 139 #30, 146-147 <i>Review and Self-Assessment</i> 150-151 Teacher's Guide: T96, T128-T131, T143-T145
5. Models for Operations	
A. Identify the appropriate operation or number sentence to solve a story problem.	Student Edition: 15-18, 19-22, 154-157, 157-160, 161-163, 172-174, 175-177, 178-181, 182-185, 185-188, 201-203, 204-206, 207-209, 210-212 <i>On Your Own Exercises</i> 25-26, 166-170, 189-197, 213-219
B. Write story problems from equations involving fractions and decimals, including money amounts, using all operations.	Student Edition: 19-22, 29-31, 436-439, 439-442 <i>On Your Own Exercises</i> 24-27, 443-448 Teacher's Guide: T19-T22, T29-T31, T436-T439, T439-T442

STANDARDS	PAGE REFERENCES
6. Basic Facts	
A. Multiply and divide facts.	Student Edition: 19-22, 76-79, 82-84, 85-87 Teacher's Guide: T19-T22, T76-T79, T82-T84, T85-T87
7. Computation with Whole Numbers and Decimals	
A. Add and subtract 2-, 3- and 4-digit whole numbers, money amounts and decimals.	Student Edition: <i>On Your Own Exercises</i> 13 #14-#16, 27 #23-#28
B. Multiply and divide whole numbers and decimals by 10, 100 and 1,000.	Student Edition: 112-117, 117-119 <i>On Your Own Exercises</i> 123 #6-#14 Teacher's Guide: T112-T117, T117-T119
C. Multiply and divide 2- and 3-digit whole numbers and money amounts by 1-digit numbers and 1-digit decimals.	Student Edition: 198-201, 201-203, 204-206, 207-210, 210-212 <i>On Your Own Exercises</i> 213-219 Teacher's Guide: T198-T201, T201-T203, T203-T206, T207-T210, T210-T212
D. Identify the correct placement of the decimal point in multiplication and division of decimals by one-digit numbers.	Student Edition: 198-201, 201-203, 204-206, 207-210, 210-212 <i>On Your Own Exercises</i> 213-219 Teacher's Guide: T198-T201, T201-T203, T203-T206, T207-T210, T210-T212
8. Computation with Fractions and Integers	
A. Add and subtract fractions and mixed numbers with reasonable and appropriate denominators.	Student Edition: 154-157, 157-160, 161-163 <i>Lab Investigation</i> 164-165 <i>On Your Own Exercises</i> 166-170 Teacher's Guide: T154-T157, T157-T160, T161-T163
B. Multiply whole numbers and fractions by fractions and mixed numbers.	Student Edition: 172-175, 175-177, 178-181 <i>On Your Own Exercises</i> 189-195 Teacher's Guide: T172-T175, T175-T177, T178-T181

STANDARDS	PAGE REFERENCES
9. Solve Word Problems	
<p>A. Solve one-step story problems involving whole numbers, decimals and money amounts with or without extraneous information.</p>	<p>Student Edition: 172-175, 198-201, 204-206 <i>Explore</i> 172 <i>On Your Own Exercises</i> 123 #1-#2, 213-219 <i>Share and Summarize</i> 117 Teacher’s Guide: T198-T201, T204-T206</p>
<p>B. Solve two-step story problems involving whole numbers, decimals, fractions and money amounts without extraneous information.</p>	<p>Student Edition: 134-136, 161-163, 204-206 <i>On Your Own Exercises</i> 198 #1-#2, 213-219 <i>Review and Self-Assessment</i> 149 #3 Teacher’s Guide: T134-T136, T202, T204-T206</p>
<p>C. Solve two-step problems involving whole numbers and decimals with extraneous information.</p>	<p>Student Edition: 120-122, 210-212 <i>On Your Own Exercises</i> 124-126 Teacher’s Guide: T120-T122, T210-T212</p>
<p>D. Solve two-step problems involving whole numbers, decimals or money amounts, and explain how the answer was determined.</p>	<p>Student Edition: 204-206 <i>On Your Own Exercises</i> 213-219 <i>Review and Self-Assessment</i> 149 #3, 222 #8-#10 Teacher’s Guide: T202, T204-T206</p>
10. Numerical Estimation Strategies	
<p>A. Identify the best expression to find an estimate.</p>	<p>Student Edition: 104-105, 128-131, 178-181, 200 <i>On Your Own Exercises</i> 107, 110-111 Teacher’s Guide: T105, T130-T131, T181</p>
<p>B. Identify whether and why a particular strategy will result in an overestimate or an underestimate.</p>	<p>Student Edition: 203, 206, 208 <i>Lab Investigation</i> 164 Teacher’s Guide: T203, T206, T208</p>

STANDARDS	PAGE REFERENCES
11. Estimating Solutions to Problems	
A. Identify a reasonable estimate to a problem, including estimating change.	Student Edition: 104-105, 128-131, 233, 252-255 <i>On Your Own Exercises</i> 215-216 #25-#28, 257 #8-#11 Teacher's Guide: T105, T181, T205
B. Determine a reasonable estimate, and describe the strategy used to arrive at the estimate.	Student Edition: 104-105, 128-131, 233, 252-255 <i>On Your Own Exercises</i> 215-216 #25-#28, 257 #8-#11 Teacher's Guide: T105, T181, T205
C. Given an estimate as a solution, judge its reasonableness and justify the decision.	Student Edition: 104-105, 128-131, 233 <i>On Your Own Exercises</i> 110 #45, 137 #1-#5 Teacher's Guide: T104-T105, T128-T131
12. Ratios and Proportions	
A. Solve problems involving simple ratios.	Student Edition: 152, 211-212 <i>On Your Own Exercises</i> 215 #27 <i>Think and Discuss</i> 210 Teacher's Guide: T211-T212
13. Computation with Percents	
Not tested	
14. Time	
Not tested	
15. Approximating Measures	
A. Estimate lengths, areas and angle measures.	Student Edition: 46-49, 467-471, 472-476 <i>On Your Own Exercises</i> 477-480 Teacher's Guide: T48, T467-T471, T472-T476

STANDARDS	PAGE REFERENCES
16. Customary and Metric Measures	
<p>A. Measure and determine perimeter, area and volume. Explain or show how the solution was determined.</p>	<p>Student Edition: 482-486, 486-489, 494-498, 498-501, 504-507, 514-517, 518-521 <i>On Your Own Exercises</i> 13 #21, 426 #17, 490-491</p> <p>Teacher’s Guide: T484, T485, T486-T489, T494-T498, T498-T501, T504-T507, T514-T517, T518-T521</p>
<p>B. Identify appropriate customary or metric units of measure (length, temperature, capacity, mass) for a given situation.</p>	<p>Student Edition: 17-18, 117-119 <i>On Your Own Exercises</i> 111 #52-#55, 123 #12-#21, 141 #54-#57</p> <p>Teacher’s Guide: T17-T18, T117-T119</p>
<p>C. Identify the correct solution to problems involving the conversions of measures of length, mass, capacity and time.</p>	<p>Student Edition: 17-18, 117-119 <i>On Your Own Exercises</i> 111 #52-#55, 123 #12-#21, 141 #54-#57</p> <p>Teacher’s Guide: T17-T18, T117-T119</p>
<p>D. Solve problems involving conversions of measures of length, mass, capacity and time.</p>	<p>Student Edition: 17-18, 117-119 <i>On Your Own Exercises</i> 111 #52-#55, 123 #12-#21, 141 #54-#57</p> <p>Teacher’s Guide: T17-T18, T117-T119</p>
17. Geometric Shapes and Properties	
<p>A. Identify and classify 2- and 3-dimensional geometric shapes and figures.</p>	<p>Student Edition: 42-46, 46-49, 50-53, 54-57, 466-471, 472-476, 515-517 <i>Lab Investigation</i> 58-60 <i>On Your Own Exercises</i> 61-68, 534 #24</p> <p>Teacher’s Guide: T42-T46, T46-T49, T50-T53, T54-T57, T466-T471, T472-T476, T515-T517</p>

STANDARDS	PAGE REFERENCES
B. Draw, describe and classify 2-dimensional geometric shapes and figures.	Student Edition: 42-46, 46-49, 50-54, 54-57 <i>On Your Own Exercises</i> 61-68 Teacher's Guide: T42-T46, T46-T49, T50-T54, T54-T57
18. Spatial Relationships	
A. Identify lines of symmetry.	Student Edition: 50-51 <i>On Your Own Exercises</i> 170 #64, 259 #39-#40 Teacher's Guide: T50
B. Draw lines of symmetry.	Student Edition: 50-51 <i>On Your Own Exercises</i> 170 #64, 259 #39-#40 Teacher's Guide: T50
C. Identify congruent and similar figures.	See Glencoe's <i>Impact Mathematics: Algebra and More Course 2</i> © 2004 Student Edition: 450-453, 454-455, 461-463, 471-473, 473-474 <i>Lab Investigation</i> 476-477 <i>On Your Own Exercises</i> 464-469 Teacher's Guide: T450-T453, T454-T455, T461-T463, T471-T473, T473-T474
D. Identify geometric reflections, rotations and translations.	Student Edition: 50-51, 62 #9, 492 #1
E. Locate and draw points on grids.	Student Edition: 302-305, 306-310 <i>On Your Own Exercises</i> 311-312, 619 #31 Teacher's Guide: T302-T305, T306-T310

STANDARDS	PAGE REFERENCES
19. Tables, Graphs and Charts	
A. Identify correct information from tables, line graphs, bar graphs, stem-and-leaf plots, and charts.	<p>Student Edition: 230-233, 317-318, 319-320, 320-323, 343-345, 346-349 <i>Lab Investigation</i> 324-326</p> <p>Teacher's Guide: T230-T233, T317-T318, T319-T320</p>
B. Create bar graphs and line graphs from data in tables and charts.	<p>Student Edition: 342-345, 346-349 <i>On Your Own Exercises</i> 141 #58, 171 #65, 353-360</p> <p>Teacher's Guide: T342-T345, T346-T349</p>
20. Statistics and Data Analysis	
A. Draw reasonable conclusions from data in tables, pictographs, line graphs, circle graphs, stem-and-leaf plots, and charts.	<p>Student Edition: 230-233, 278-282, 282-286, 286-291, 346-349, 350-353, 362-365 <i>On Your Own Exercises</i> 353-360, 380-388</p> <p>Teacher's Guide: T278-T282, T346-T349, T350-T352</p>
B. Solve problems involving means, medians and modes of sets of data.	<p>Student Edition: 363-365, 370-372, 373-376, 394-395 <i>Lab Investigation</i> 396-398 <i>On Your Own Exercises</i> 380-388</p> <p>Teacher's Guide: T370-T372, T373-T376, T394-T395</p>
21. Probability	
A. Identify correct solutions to problems involving elementary notions of probability and fairness.	<p>Student Edition: 605-607, 608-612, 621-622, 623-624, 624-625, 626-630 <i>Lab Investigation</i> 613-614 <i>On Your Own Exercises</i> 615-618, 631-636</p> <p>Teacher's Guide: T605-T607, T608-T612, T619</p>

STANDARDS	PAGE REFERENCES
<p>B. Solve problems involving elementary notions of probability and fairness, including justifying solutions.</p>	<p>Student Edition: 603, 604, 605-607, 608-612 <i>Lab Investigation</i> 613-614 <i>On Your Own Exercises</i> 615-618, 631-636</p> <p>Teacher’s Guide: T605-T607, T608-T612</p>
<p>22. Patterns</p>	
<p>A. Identify the missing terms in a pattern, or identify rules for a given pattern using numbers and attributes.</p>	<p>Student Edition: 4-9, 14-18, 32-35, 42-45, 410-413 <i>On Your Own Exercises</i> 10-13, 36-41</p> <p>Teacher’s Guide: T4-T9, T15-T18, T32-T35, T411-T413</p>
<p>B. Extend or complete patterns and state rules for given patterns using numbers and attributes.</p>	<p>Student Edition: 28-31, 32-35, 134-136, 411-414, 414-418, 419-421, 430-432, 436-439, 439-442 <i>On Your Own Exercises</i> 422-429, 443-448</p> <p>Teacher’s Guide: T28-T31, T134-T136, T411-T414, T419-T421, T436, T439</p>
<p>23. Algebraic Concepts</p>	
<p>A. Solve simple 1-step algebraic equations.</p>	<p>Student Edition: 558-560, 560-562, 571-573, 574-576, 576-578 <i>Lab Investigation</i> 563-564, 579-583 <i>On Your Own Exercises</i> 565-569</p> <p>Teacher’s Guide: T559-T560, T561-T562, T571-T573, T574-T576</p>
<p>B. Evaluate equations, identify fact-family relationships and use formulas provided.</p>	<p>Student Edition: 436-439, 439-442, 451-454, 455-456, 559-560, 560-562 <i>On Your Own Exercises</i> 443-445, 565-569</p> <p>Teacher’s Guide: T436-T439, T442, T453</p>

STANDARDS	PAGE REFERENCES
24. Classification and Logical Reasoning	
<p>A. Solve logic, counting and classification problems involving the organization of data.</p>	<p>Student Edition: 377-379, 390-393, 394-395 <i>Lab Investigation</i> 396-398 <i>On Your Own Exercises</i> 399-401 Teacher’s Guide: T377-T379, T390-T393, T394-T395</p>
<p>B. Sort or classify objects, and draw logical conclusions from data including Venn diagrams and transitive reasoning questions.</p>	<p>Student Edition: 377-379, 390-393, 394-395 <i>Lab Investigation</i> 396-398 <i>On Your Own Exercises</i> 247 #51, 399-401 Teacher’s Guide: T377-T379, T390-T393, T394-T395</p>
25. Mathematical Applications	
<p>A. Solve extended numerical, statistical and spatial problems.</p>	<p>Student Edition: 4-9, 14-18, 28-31, 32-35, 410-413, 414-418 <i>Lab Investigation</i> 396-398 <i>On Your Own Exercises</i> 10-13, 23-24, 36-41, 422-424 <i>Review and Self-Assessment</i> 460-461 #1-#5 Teacher’s Guide: T4-T9, T14-T18, T28-T31, T32-T35, T410-T413, T414-T418</p>