



Contemporary Mathematics in Context

A Unified Approach
Course 1
© 2003

| STANDARDS | PAGE REFERENCES |
|--|--|
| 1. NUMBER OPERATIONS AND CONCEPTS | |
| Students use numbers, number sense, and number relationships in a problem-solving situation. | |
| 1. Students represent and apply real numbers in a variety of forms. | Student Edition: 412 #1, 426 #7c, 428 #5a, 477 #1d <i>On Your Own</i> 427 #e Teacher's Guide: E T412 |
| 2. Students apply the structure and properties of the real number system. | Student Edition: 220 #4, 224, 239 #1, 240 #2, 241 #4, 242 #3, 247 #5b Teacher's Guide: R T241 |
| 3. Students explain their choice of estimation and problem-solving strategies and justify results of solutions in problem-solving situations involving real numbers. | Student Edition: 35 #4g, 46 #4, 50 #6, 55 #1c-#1d, 225 #2, 373 #2b |
| 4. Students use proportional reasoning to solve problems. | Student Edition: 176 #3, 177 #4 |

| STANDARDS | PAGE REFERENCES |
|---|---|
| 2. GEOMETRY | |
| Students apply geometric concepts, properties, and relationships in a problem-solving situation. | |
| <p>1. Students use transformations, congruency, symmetry, similarity, perpendicularity, parallelism, and the Pythagorean Theorem to solve problems.</p> | <p>Student Edition: 333 #8, 341-344, 345-346, 347-354, 362-364, 366-372, 416-417 <i>Checkpoint 365</i></p> <p>Teacher’s Guide: C T365; I T362</p> |
| <p>2. Students communicate, using mathematical language, to:</p> <ul style="list-style-type: none"> • Interpret, represent, or create geometric figures; • Draw or build figures from a mathematical description; • Analyze properties and determine attributes of 2- and 3-dimensional objects. | <p>Student Edition: 383-388, 389-392, 395-401 <i>Checkpoint 418</i></p> <p>Teacher’s Guide: C T389; I T390</p> |
| <p>3. Students communicate the reasoning used in identifying geometric relationships in problem-solving situations.</p> | <p>Student Edition: 264 #3, 274 #4 <i>Organizing 263 #3</i> <i>Think About 32</i></p> |
| <p>4. Students solve problems involving the coordinate plane such as the distance between two points, the midpoint, and slope.</p> | <p>Student Edition: 175, 182, 183 #2, 184, 186, 188 #1, 189 #4, 191 #3 <i>Checkpoint 187</i></p> <p>Teacher’s Guide: O T175</p> |
| <p>5. Students connect geometry with other mathematical topics.</p> | <p>Student Edition: 327-329, 335 #2, 338 #1, 339 #3, 347 #1, 350 #4, 353 #1, 397 #5</p> |
| 3. MEASUREMENT | |
| Students use a variety of tools and techniques of measurement in a problem-solving situation. | |
| <p>1. Students apply estimation and measurement using the appropriate methods and units to solve problems involving length, weight/mass, area, surface area, volume, and angle measure.</p> | <p>Student Edition: 355-361, 386-387, 397 #1 <i>Checkpoint 389</i> <i>On Your Own 389</i></p> |

| STANDARDS | PAGE REFERENCES |
|---|---|
| 2. Students demonstrate an understanding of both metric and U.S. customary systems. Students are able to convert within each system. | This standard can be met in Glencoe's <i>Contemporary Mathematics Course 3</i> © 2003. Student Edition: 489-490 |
| 3. Students identify and apply scale, ratios, and proportions in solving measurement problems. | Student Edition: 176 #3, 177 #4 |
| 4. Students solve problems of angle measure including those involving polygons or parallel lines cut by a transversal. | Student Edition: 386-387, 397 #1 <i>Checkpoint</i> 389 <i>On Your Own</i> 389 |
| 5. Students solve indirect measurement problems. | Student Edition: 361, 362-364, 374 #3-#4, 375 #5-#6, 376 #9, 377 #2, 378 #4, 382 #4, 397 #1 Teacher's Guide: I T362 |
| 4. ALGEBRA | |
| Students use algebraic methods to investigate, model, and interpret patterns and functions involving numbers, shapes, data, and graphs in a problem-solving situation. | |
| 1. Students use algebraic concepts, symbols, and skills to represent and solve real-world problems. | Student Edition: 142 #1, 143 #4, 147 #1, 148 #2, 149 #4, 150 #5, 156 #3, 172 #4, 174 #6, 188 #1 |
| 2. Students write, model, and evaluate expressions, functions, equations, and inequalities. | Student Edition: 194-198, 202 #1, 205 #1, 212-215, 216-219, 220-222, 236 #5 <i>Checkpoint</i> 237 |
| 3. Students graph linear equations and interpret the results in solving algebraic problems. | Student Edition: 199-201, 205 #1, 206 #2, 208 #2, 224 #1, 225 #4, 226 #2, 245 #2c |
| 4. Students solve, graph, or interpret systems of linear equations. | Student Edition: 227-228, 229-233, 246 #3d Teacher's Guide: I T226; TN T230 |
| 5. Students connect algebra with other mathematical topics. | This standard can be met in Glencoe's <i>Contemporary Mathematics Course 3</i> © 2003. Student Edition: 426 #5, 434 #1, 436 #3, 459 #5, 480 #1a, 482 #3a |

| STANDARDS | PAGE REFERENCES |
|--|--|
| 5. DATA ANALYSIS AND PROBABILITY | |
| Students use data analysis and probability to analyze given situations and the results of experiments. | |
| 1. Students apply knowledge of mean, median, mode, and range to interpret and evaluate information and data. | Student Edition: 16-19, 31-34, 37, 38-46, 47-51, 52-54, 63-65 <i>Checkpoint 36</i> Teacher's Guide: I T31, T63 |
| 2. Students draw reasonable inferences from statistical data and/or correlation/best fit line to predict outcomes. | Student Edition: 75-79, 195 #2, 203 #3, 204 #5, 207 #1, 208 #3, 231 #1 |
| 3. Students communicate about the likelihood of events using concepts from probability. <ul style="list-style-type: none"> • sample space • evaluate simple probabilities • evaluate experimental vs. theoretical | Student Edition: 492 #3, 495 #4, 496 #2, 497 #6, 505 #1, 506 #2, 507 #3, 511 #4, 512 #5 <i>Think About This Situation 484</i> |
| 4. Students determine, collect, organize, and analyze relevant data needed to make conclusions. | Student Edition: 3-6, 20 #1, 21 #5, 24-29, 44 #4, 45 #2, 54 #5, 60 #3 <i>Checkpoint 23</i> Teacher's Guide: C 23 |