



# Math Connects

Concepts, Skills, and Problem Solving

Course 3

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STANDARDS		PAGE REFERENCES
Grade Level Expectations		
<i>M (N&amp;O)-8-1</i>		
<i>Rational Numbers</i>		
Absolute value		
Demonstrate conceptual understanding of absolute value	<b>Student Edition:</b> 36 ex 2, 37 ex 6, 38 #25-#30, 39 #43-#45, 45 #48, 49 #52-#55, 50 #7, 76 #21-#22, 79 #7, 80 #7	
	<b>Teacher Edition:</b> A 39; AE 36, 37; PA 39; TNT 37	
Perfect square and cube roots		
Recognize perfect squares and cube roots	<b>Student Edition:</b> 144-147, 151 #36, 159 #5-#6, 160 #1-#6, 180 #9-#12, 183 #1-#3	
	<b>Teacher Edition:</b> A 147; AE 145; F 145; PA 146; T 144; TNT 145, 147	

STANDARDS	PAGE REFERENCES
Percent of change (increase and decrease)	
Describe change in terms of percent increase and decrease using explanation, models and other representations	<p><b>Student Edition:</b> 284-289, 293 #27, 298 #46-#50, 299 #22-#23, 300 #3, 301 #12, 311 #43-#45</p> <p><b>Teacher Edition:</b> A 289; AE 285, 286, 287; DI 285; F 285; PA 287; T 284, 290; TNT 286</p>
<p><i>M (N&amp;O)-8-2</i> <i>Magnitude in Numbers</i></p>	
<p>Rational numbers (fractions, decimals, percents) Common irrational numbers (ex. Pi, <math>\sqrt{2}</math>) Whole number and fractional bases with whole number exponents (<math>3^2</math>, <math>(1/5)^2</math>) Square roots Absolute values Integers Scientific notation</p>	
Order and compare across number formats	<p><b>Student Edition:</b> 34 #55-#58, 36 ex 1, 37 #1-#4, 38 #13-#24, 45 #45-#48, 50 #6-#7, 76 #18-#19, 79 #5-#6, 91-95, 101 #55-#57, 113 #4-#7, 135 #21-#25, 141 #8, 157 ex 5-ex 6, 158 #23-#28, 159 #32-#35, 160 #27-#30, 166 #35-#38, 171 #24, 183 #4</p>
Connect numbers to quantities using number lines and equality or inequality symbols	<p><b>Student Edition:</b> 34 #55-#58, 36 ex 1, 37 #1-#4, 38 #13-#24, 45 #45-#48, 50 #6-#7, 76 #18-#19, 79 #5-#6, 91-95, 101 #55-#57, 113 #4-#7, 135 #21-#25, 141 #8, 157 ex 5-ex 6, 158 #23-#28, 159 #32-#35, 160 #27-#30, 166 #35-#38, 171 #24, 183 #4</p>
<p><i>M (N&amp;O)-8-3</i> <i>Mathematical Operations</i></p>	
None at this grade	

STANDARDS	PAGE REFERENCES
<p><i>M (N&amp;O)-8-4</i> <i>Solving Problems</i></p> <p>Proportional reasoning Percent increase or decrease Interest rates Mark ups or rates Squares and cubes and taking square and cube roots Order of operations (parentheses, brackets, exponents) Multiplication or division of integers</p>	
<p>Solve problems incorporating content as listed</p>	<p><b>Student Edition:</b> 284-289, 293 #27, 298 #46-#50, 299 #22-#23, 300 #3, 301 #12, 311 #43-#45</p> <p><b>Teacher Edition:</b> A 289; AE 285, 286, 287; DI 285; F 285; PA 287; T 284, 290; TNT 286</p>
<p><i>M (N&amp;O)-8-5</i> <i>Monetary Value</i></p> <p>None at this level</p>	
<p><i>M (N&amp;O)-8-6</i> <i>Mental Math</i></p> <p><i>Embed mental arithmetic throughout math instruction</i></p> <p>Mental computation strategies: Use compatible numbers Apply properties Use mental imagery Use patterns</p>	
<p>Mentally calculate benchmark perfect squares and square roots (<math>1^2, 2^2, \dots, 12^2, 15^2, 20^2, 100^2, 1000^2</math>)</p>	<p><b>Student Edition:</b> 144 ex 1 – ex 3, 145 ex 4, 146 #1, 147 #40, 148-151, 156 ex 2, 159 #45-#47, 160 #1-#6</p> <p><b>Teacher Edition:</b> A 147; AE 145; F 145; PA 146; T 144; TNT 145, 147</p>
<p>Determine part of a number using benchmark percents and related fractions (1%, 10%, 25%, 33 1/3%, 50%, 66 2/3%, 75%, 100%) ex. 33 1/3 % of 21 and 25% of 16</p>	<p><b>Student Edition:</b> 275-278, 283 #32, 289 #34-#37, 297 #37-#40, 299 #9-#12</p> <p><b>Teacher Edition:</b> A 278; AE 276; T 275; TNT 276</p>

STANDARDS	PAGE REFERENCES
<p><i>M (N&amp;O)-8-7</i> <i>Estimation</i></p> <p><i>Embed estimation throughout math instruction</i></p> <p>Estimation Tips, discounts and tax Non-perfect square roots between two whole numbers</p>	
<p>Identify when estimation is appropriate</p>	<p><b>Student Edition:</b> 144 ex 1-ex 3, 145 ex 4, 146 #1, 147 #40, 148-151, 156 ex 2, 159 #45-#47, 160 #1-#6, 352, 354, 374</p> <p><b>Teacher Edition:</b> A 147; AE 145, 149; DI 150; F 145, 149; PA 146; T 144; TNT 145, 147, 150</p>
<p>Select an appropriate method of estimation</p>	<p><b>Student Edition:</b> 144 ex 1-ex 3, 145 ex 4, 146 #1, 147 #40, 148-151, 156 ex 2, 159 #45-#47, 160 #1-#6, 352, 354, 374</p> <p><b>Teacher Edition:</b> A 147; AE 145, 149; DI 150; F 145, 149; PA 146; T 144; TNT 145, 147, 150</p>
<p>Determine the level of accuracy needed for a situation</p>	<p><b>Student Edition:</b> 736</p>
<p>Analyze effect of estimate on accuracy of results</p>	<p><b>Student Edition:</b> 736 <i>Study Tip</i> 115, 163, 265, 286, 381</p>
<p>Evaluate the reasonableness of solution</p>	<p><b>Student Edition:</b> 104 ex 5, 226 ex 2, 280 ex 2 <i>Study Tip</i> 115, 163, 265, 286, 381 <i>Test-Taking Tip</i> 115</p>
<p><i>M (N&amp;O)-8-8</i> <i>Properties</i></p> <p><i>Embed properties throughout math instruction</i></p> <p>Number Properties: Odd and even numbers, positive and negative numbers, prime factorization, divisibility and remainders</p>	
<p>Apply number properties to simplify computations and solve problems</p>	<p><b>Student Edition:</b> 31, 32 #8-#9, 33 #33-#36, 34 #48</p> <p><b>Teacher Edition:</b> A 34; AE 31</p>

STANDARDS	PAGE REFERENCES
Field properties: commutative, associative, identity (including $2^0 \times 2^3 = 2^{0+3} = 2^3$ ), distributive, inverses (additive and multiplicative)	
Demonstrate conceptual understanding of field properties as they apply to subsets of real numbers when addition and multiplication are not defined in the traditional ways (e.g., if $a \cdot D = a + b - 1$ , is D a commutative operation?)	<b>Student Edition:</b> 33 #33-#36, 56 #63-#64
<i>M (G&amp;M)-8-1</i> <i>Sorting and Classifying</i>	
None at this grade	
<i>M (G&amp;M)-8-2</i> <i>Applies Theorems or Relationships</i>	
Pythagorean Theorem	
Find missing side of a right triangle using Pythagorean Theorem	<b>Student Edition:</b> 162-166, 167-171, 178 #46-#48, 181 #32-#38, 182 #39-#43, 183 #12-#13, 184 #1, 185 #16, 193 #35, 249 #10 <i>Geometry Lab</i> 161 <b>Teacher Edition:</b> A 166; AE 163, 164, 168; DI 164; F 163; PA 163; T 162; TNT 164
Solve problems using Pythagorean Theorem	<b>Student Edition:</b> 162-166, 167-171, 178 #46-#48, 181 #32-#38, 182 #39-#43, 183 #12-#13, 184 #1, 185 #16, 193 #35, 249 #10 <i>Geometry Lab</i> 161 <b>Teacher Edition:</b> A 166; AE 163, 164, 168; DI 164; F 163; PA 163; T 162; TNT 164
<i>M (G&amp;M)-8-3</i> <i>3-Dimensional Shapes</i>	
None at this level	
<i>M (G&amp;M)-8-4</i> <i>Congruency</i>	
None at this level	

STANDARDS	PAGE REFERENCES
<p><i>M (G&amp;M)-8-5</i> <i>Similarity</i></p>	
<p>Volume, surface area of 3-D figures</p>	
<p>Determine the impact of scaling on volume and surface area of 3-D figures when line dimensions are multiplied by a constant factor</p>	<p><b>Student Edition:</b> 399-404, 408 #28, 409 #7 <i>Spreadsheet Lab</i> 397-398</p> <p><b>Teacher Edition:</b> A 404; AE 400; F 397, 400, 401; T 397, 399; TNT 399, 401</p>
<p>Similarity of triangles</p>	
<p>Determine the length of sides of similar triangles</p>	<p><b>Student Edition:</b> 218-223, 230 #29, 232-235, 241 #27, 245 #25, 246 #31-#32, 247 #9</p> <p><b>Teacher Edition:</b> AE 219; F 219; T 218; TNT 219</p>
<p>Growth and rate problems</p>	
<p>Solve problems involving growth and rate</p>	<p><b>Student Edition:</b> 190-193, 197 #21-#22, 198-203, 204-209, 214 #36, 215 #7, 243 #7-#10, 244 #15-#16, 247 #2-#3</p> <p><b>Teacher Edition:</b> A 193, 209; AE 191, 199, 205, 206; F 191, 199; T 190, 198, 204; TNT 192</p>
<p><i>M (G&amp;M)-8-6</i> <i>Volume and surface area</i></p>	
<p>Volume and surface area of rectangular prisms, triangular prisms, cylinders, pyramids and cones</p>	
<p>Determine the volume and surface area using formulas, models, or by solving related problems</p>	<p><b>Student Edition:</b> 373-378, 379 #10-#11, 380-384, 386-391, 393-396, 400 ex 2, 403 #13, 407 #18-#20, 409 #8-#9, 410 #3 <i>Measurement Lab</i> 385 <i>Spreadsheet Lab</i> 397-398</p> <p><b>Teacher Edition:</b> A 378; AE 374, 375, 387, 388, 389; DI 374; F 374; T 373</p>
<p>Express measures in appropriate units</p>	<p><b>Student Edition:</b> 736, 739</p>

STANDARDS	PAGE REFERENCES
<p><i>M (G&amp;M)-8-7</i> <i>Measurement</i></p> <p><i>Embed measurement throughout math instruction</i></p>	
<p>Length (inch, foot, centimeter, meter, yard, mile, kilometer, 12in=1ft, 100cm=1m, 3ft=1yd, 10mm=1cm, 1000mm=1m, to 1/16 inch, to 0.1 cm, to .001m,)</p> <p>Time (hour, day, year, 24hrs=1 day, 7 days=1 week, 365 days=1 year, 60 sec=1 min, 60min=1 hr, to 1 minute intervals)</p> <p>Temperature (Celsius and Farenheit to 1 degree)</p> <p>Capacity (quart, gallon, pint, liter 32oz=1qt, 4qts=1 gal., 2pts=1qt, 1000ml=1L, to 1oz)</p> <p>Mass (gram, kilogram)</p> <p>Weight (pound, ounces, 16oz=1lb., to 1oz)</p> <p>Angles and Rotation (degree, ° 360 = 1circle, ° 90 = right angle, to 2 degrees)</p>	
<p>Measure using appropriate units for length, time, temperature, capacity, mass and weight</p>	<p><b>Student Edition:</b> 736, 739</p>
<p>Solve problems and make conversions for length, time and mass</p>	<p><b>Student Edition:</b> 742-743, 744-745</p>
<p><i>M (G&amp;M)-8-8</i> <i>Time</i></p>	
<p>None at this level</p>	
<p><i>M (G&amp;M)-8-9</i> <i>Spatial Relationships</i></p>	
<p>None at this level</p>	
<p><i>M (G&amp;M)-8-10</i> <i>Spatial Reasoning and Visualization</i></p>	
<p>None at this level</p>	

STANDARDS	PAGE REFERENCES
<p><i>M (F&amp;A)-8-1</i> <i>Patterns</i></p>	
	<p>Identifies and extends to a variety of patterns (linear and non-linear) represented in models, tables, sequences, graphs and problem situations</p>
<p>Generalize linear and common nonlinear relationships (nonrecursive explicit equation) to find a specific case</p>	<p><b>Student Edition:</b> 475-480, 486 #38-#41, 492 #32, 494 #10-#11, 495-499, 500-501, 519 #18-#20, 523 #7-#8, 524 #5, 527 #1-#4, 528-533, 534-537, 540-543, 548 #43-#48, 549 #6-#9, 554 #52-#55, 564 #10-#17, 565 #20-#24, 567 #1-#3 <i>Graphing Calculator Lab 544</i></p> <p><b>Teacher Edition:</b> AE 476, 477; DI 477; TNT 476</p>
<p>Generalize a nonlinear relationship using words or symbols</p>	<p><b>Student Edition:</b> 528-533, 534-537, 540-543, 548 #43-#48, 549 #6-#9, 554 #52-#55, 564 #10-#17, 565 #20-#24, 567 #1-#3, 569 #5 <i>Graphing Calculator Lab 544</i></p> <p><b>Teacher Edition:</b> A 533, 537; AE 529, 530, 535, 536; F 528; T 528; TNT 530</p>
<p><i>M (F&amp;A)-8-2</i> <i>Rates of Change</i></p>	
	<p>Linear relationships (<math>y=kx</math> and <math>y=mx+b</math>) as a constant rate of change</p>
<p>Solve problems involving relationship of slope and rate of change</p>	<p><b>Student Edition:</b> 481-486, 487-492, 494 #13-#16, 495-499, 507 #31, 520 #21-#25, 521 #29-#34, 523 #9-#10, 524 #4, 525 #8 <i>Geometry Lab 493</i></p> <p><b>Teacher Edition:</b> A 486; AE 482, 483, 488, 489, 496; DI 483; F 482; T 481</p>
<p>Determine slopes and intercepts represented in graphs, tables, or problem situations</p>	<p><b>Student Edition:</b> 481-486, 487-492, 494 #13-#16, 495-499, 507 #31, 520 #21-#25, 521 #29-#34, 523 #9-#10, 524 #4, 525 #8 <i>Geometry Lab 493</i></p> <p><b>Teacher Edition:</b> A 486; AE 482, 483, 488, 489, 496; DI 483; F 482; T 481</p>

STANDARDS	PAGE REFERENCES
Describe the meaning of slope and intercept in context	<p><b>Student Edition:</b> 481-486, 487-492, 494 #13-#16, 495-499, 507 #31, 520 #21-#25, 521 #29-#34, 523 #9-#10, 524 #4, 525 #8 <i>Geometry Lab</i> 493</p> <p><b>Teacher Edition:</b> A 486; AE 482, 483, 488, 489, 496; DI 483; F 482; T 481</p>
Distinguish between linear relationships (constant rates of change) and nonlinear relationships (varying rates of change) represented in tables, graphs, equations, or problem situations	<p><b>Student Edition:</b> 528-533, 534-537, 540-543, 548 #43-#48, 549 #6-#9, 554 #52-#55, 564 #10-#17, 565 #20-#24, 567 #1-#3, 569 #5 <i>Graphing Calculator Lab</i> 544</p> <p><b>Teacher Edition:</b> A 533, 537; AE 529, 530, 535, 536; F 528; T 528; TNT 530</p>
Describe how a change in the value of one variable relates to a change in the value of the second variable in problem situations with constant and varying rates of change	<p><b>Student Edition:</b> 498 #41, 537 #30-#32, 543 #26 <i>Graphing Calculator Lab</i> 544</p> <p><b>Teacher Edition:</b> A 544; F 544; T 544</p>
<p><i>M (F&amp;A)-8-3</i> <i>Algebraic Expressions</i></p>	
<p>Algebraic expressions (including those with square roots, exponents, or rational numbers)</p>	
Simplify algebraic expressions	<p><b>Student Edition:</b> 545-548, 549 #17-#21, 550-554, 555-558, 559-562, 565 #25-#34, 566 #33-#54, 567 #7, 569 #6 LA6-LA8, LA9-LA11</p> <p><b>Teacher Edition:</b> A 548, 554; AE 546, 551, 552; F 546, 551; T 545, 550; TNT 545</p>
Evaluate an expression within an equation (find $y$ when $x=4$ , given $y=7\sqrt{x}=2x$ )	<p><b>Student Edition:</b> 30 ex 1-ex 2, 32 #1-#6, 33 #38, 37 ex 5, 38 #31-#34, 39 #51-#53, 45 #51-#55, 47 ex 5-ex 6, 48 #31-#38, 50 #3-#4, 53 ex 7, 54 #13-#15, 55 #41-#44, 75 #13-#16, 79 #2-#3, 81 #10, 100 #44-#47, 111 #33-#36, 116 #28-#29, 118 #47</p>

STANDARDS	PAGE REFERENCES
<i>M (F&amp;A)-8-4</i> <i>Equality</i>	
Equality	
Show equivalence between two expressions using models or different representations	<b>Student Edition:</b> LA6-LA8, LA9-LA11 <i>Algebra Lab</i> 40 <i>Mini Lab</i> 46, 65
Solve formulas for a variable requiring one transformation ( $tr d r t d = = / ;$ )	<b>Student Edition:</b> 495 ex 2, 497 #14-#15 <b>Teacher Edition:</b> AE 496
Solve multi-step linear equations with integer coefficients	<b>Student Edition:</b> 65-69, 70-73, 78 #43-#56, 79 #20-#23, 434-437, 455 #16-#18, 456 #22-#26, 459 #16-#18 <i>Algebra Lab</i> 432-433 <b>Teacher's Wraparound Edition:</b> A 433, 437; AE 66, 67, 435; F 435; PA 435; T 434; TNT 435
Apply field properties, order of operations, or substitution to show whether two expressions are equivalent	<b>Student Edition:</b> 30 ex 1-ex 2, 32 #1-#6, 33 #45-#47, 34 #48, 39 #51-#53, 50 #3-#4, 53 ex 7, 54 #13-#15, 55 #53-#56, 75 #13-#16, 79 #2-#3 <b>Teacher's Wraparound Edition:</b> AE 30, 33
Informally solve problems involving systems of linear equations in context	<b>Student Edition:</b> 502-507, 509 #3, 521 #35-#38 <b>Teacher's Wraparound Edition:</b> A 507; AE 503, 504; PA 505; T 502; TNT 504

STANDARDS	PAGE REFERENCES
<p><i>M (DSP)-8-1</i> <i>Interpret a Given Representation</i></p> <p><i>Consistent with skills in M(DSP)-8-2</i></p>	
<p>Data interpretation Data representations: Line graphs Scatter plots (discrete linear relationships) Histograms Box-and-whisker plots</p>	
<p>Analyze data to: formulate or justify conclusions make predictions solve problems</p>	<p><b>Student Edition:</b> 576-580, 582-588, 591-596, 598 #3-#5, 599-604, 605-610, 612-616, 617-621, 623 #9-#15, 624 #16-#20, 625 #21-#26, 626 #27-#34, 627 #6-#11, 628 #1, 629 #10, 636 #30-#33 <i>Graphing Calculator Lab</i> 581, 611 <i>Spreadsheet Lab</i> 589-590, 597</p>
<p><i>M (DSP)-8-2</i> <i>Analyze Data</i></p> <p>Patterns, trends or distributions in data Quartile values Estimated line of best fit</p>	
<p>Analyze patterns, trends or distributions in data using measures of central tendency (median, mean, mode), dispersion (range or variation), outliers, quartile values or estimated line of best fit to analyze situations or solve problems</p>	<p><b>Student Edition:</b> 510-515, 522 #39, 523 #19-#21, 525 #7, 533 #44-#46, 537 #40-#42, 591-596, 598 #9, 610 #32, 624 #18-#19, 627 #6, 628 #4 <i>Spreadsheet Lab</i> 597 <b>Teacher Edition:</b> A 515; AE 511, 512; DI 511; F 511; T 510; TNT 511, 512</p>
<p>Evaluate the sample from which the statistics were developed (biased, random or non-random)</p>	<p><b>Student Edition:</b> 653-658, 662 #26-#27, 663 #15, 664 #6 <b>Teacher Edition:</b> A 658; AE 654, 655; F 654; T 653; TNT 655</p>

STANDARDS	PAGE REFERENCES
<p><i>M (DSP)-8-3</i> <i>Organize and Display Data</i></p> <p><i>Consistent with skills in M(DSP)-8-2</i></p>	
<p>Data representation: Scatter plots</p>	
<p>Identify the best representation for data</p>	<p><b>Student Edition:</b> 612-616, 617-621, 626 #33-#34, 627 #15, 629 #11</p> <p><b>Teacher Edition:</b> A 616, 621; AE 613, 614, 618; DI 613; F 614, 618; PA 616, 620; T 617</p>
<p>Organize and display data</p>	<p><b>Student Edition:</b> 576-580, 582-588, 591-596, 598 #3-#5, 599-604, 605-610, 612-616, 617-621, 623 #9-#15, 624 #16-#20, 625 #21-#26, 626 #27-#34, 627 #6-#11, 628 #1, 629 #10, 636 #30-#33</p> <p><i>Graphing Calculator Lab</i> 581, 611</p> <p><i>Spreadsheet Lab</i> 589-590, 597</p>
<p>Answer questions related to the data</p>	<p><b>Student Edition:</b> 574-575, 576-580, 582-588, 598 #3-#5, 605-610, 612-616, 621 #29-#31, 623 #11-#15, 624 #16-#17, 626 #27-#32, 627 #14, 629 #10</p> <p><i>Graphing Calculator Lab</i> 581, 611</p> <p><i>Spreadsheet Lab</i> 589-590</p> <p><b>Teacher Edition:</b> AE 575, 577, 578, 583; F 577</p>
<p>Analyze data to form and justify conclusions, make predictions and solve problems</p>	<p><b>Student Edition:</b> 574-575, 576-580, 582-588, 598 #3-#5, 605-610, 612-616, 621 #29-#31, 623 #11-#15, 624 #16-#17, 626 #27-#32, 627 #14, 629 #10</p> <p><i>Graphing Calculator Lab</i> 581, 611</p> <p><i>Spreadsheet Lab</i> 589-590</p> <p><b>Teacher Edition:</b> AE 575, 577, 578, 583; F 577</p>

STANDARDS	PAGE REFERENCES
Analyze data using measures of central Tendency	<p><b>Student Edition:</b> 510-515, 522 #39, 523 #19-#21, 525 #7, 533 #44-#46, 537 #40-#42, 591-596, 598 #9, 610 #32, 624 #18-#19, 627 #6, 628 #4 <i>Spreadsheet Lab</i> 597</p> <p><b>Teacher Edition:</b> A 515; AE 511, 512; DI 511; F 511; T 510; TNT 511, 512</p>
<p><i>M (DSP)-8-4</i> <i>Counting Techniques</i></p>	Strategies: organized lists, tables, tree diagrams, models, Fundamental Counting Principle
Utilize counting techniques to solve combination and permutation (ordering) problems in context	<p><b>Student Edition:</b> 632-636, 642 #37, 647 #27, 652 #1-#2, 660 #7-#10, 663 #1</p> <p><b>Teacher Edition:</b> A 636; AE 632; DI 635; PA 633; T 632; TNT 635</p>
<p><i>M (DSP)-8-5</i> <i>Probability</i></p>	Experimental and theoretical probability
Predict the theoretical probability of a situation	<p><b>Student Edition:</b> 637-642, 643-647, 648 #2, 649 #11, 652 #3, 660 #11-#15, 661 #16-#21, 663 #3-#6, 665 #1</p> <p><b>Teacher Edition:</b> A 642, 647; AE 638, 639, 644; DI 646; PA 639, 644; T 637</p>
Test predictions through experiments and simulations	<p><b>Student Edition:</b> 643 ex 2, 644 ex 4, 645 #4-#5, 646 #16-#17, 654 ex 1-ex 2, 655 #1-#2, 656 #4-#9, 661 #20-#21, 662 #26-#27, 663 #15, 664 #1 <i>Probability Lab</i> 648-649</p> <p><b>Teacher Edition:</b> A 649; AE 644, 654; F 648; T 648</p>
Compare and contrast theoretical and experimental probability	<p><b>Student Edition:</b> 637-642, 643-647, 648 #2, 649 #11, 652 #3, 660 #11-#15, 661 #16-#21, 663 #3-#6, 665 #1</p> <p><b>Teacher Edition:</b> A 642, 647; AE 638, 639, 644; DI 646; PA 639, 644; T 637</p>

STANDARDS	PAGE REFERENCES
Determine the probability (theoretical or experimental) of an event in a problem solving situation	<b>Student Edition:</b> 637-642, 643-647, 648 #2, 649 #11, 652 #3, 660 #11-#15, 661 #16-#21, 663 #3-#6, 665 #1 <b>Teacher Edition:</b> A 642, 647; AE 638, 639, 644; DI 646; PA 639, 644; T 637
<i>M (DSP)-8-6</i> <i>Experimental Design</i>  <i>Consistent with skills in M(DSP)-8-2</i>  Independent experimental design (In response to a teacher or student generated question or hypothesis)	
Determine most effective method of data collection (survey, observation, experimentation)	<b>Student Edition:</b> 576-580, 582-588, 591-596, 598 #3-#5, 599-604, 605-610, 612-616, 617-621, 623 #9-#15, 624 #16-#20, 625 #21-#26, 626 #27-#34, 627 #6-#11, 628 #1, 629 #10, 636 #30-#33 <i>Graphing Calculator Lab</i> 581, 611 <i>Spreadsheet Lab</i> 589-590, 597
Collect, organize and display data	<b>Student Edition:</b> 576-580, 582-588, 591-596, 598 #3-#5, 599-604, 605-610, 612-616, 617-621, 623 #9-#15, 624 #16-#20, 625 #21-#26, 626 #27-#34, 627 #6-#11, 628 #1, 629 #10, 636 #30-#33 <i>Graphing Calculator Lab</i> 581, 611 <i>Spreadsheet Lab</i> 589-590, 597
Analyze data to draw conclusions and make predictions about question or hypothesis being tested	<b>Student Edition:</b> 574-575, 576-580, 582-588, 598 #3-#5, 605-610, 612-616, 621 #29-#31, 623 #11-#15, 624 #16-#17, 626 #27-#32, 627 #14, 629 #10 <i>Graphing Calculator Lab</i> 581, 611 <i>Spreadsheet Lab</i> 589-590 <b>Teacher Edition:</b> AE 575, 577, 578, 583; F 577
Analyze the data considering limitations that could affect interpretation	<b>Student Edition:</b> 574-575, 576-580, 582-588, 598 #3-#5, 605-610, 612-616, 621 #29-#31, 623 #11-#15, 624 #16-#17, 626 #27-#32, 627 #14, 629 #10 <i>Graphing Calculator Lab</i> 581, 611 <i>Spreadsheet Lab</i> 589-590 <b>Teacher Edition:</b> AE 575, 577, 578, 583; F 577

STANDARDS	PAGE REFERENCES
Ask new question based on results	<p><b>Student Edition:</b>            574-575, 576-580, 582-588, 598 #3-#5, 605-610,            612-616, 621 #29-#31, 623 #11-#15, 624 #16-#17,            626 #27-#32, 627 #14, 629 #10  <i>Graphing Calculator Lab</i> 581, 611  <i>Spreadsheet Lab</i> 589-590</p> <p><b>Teacher Edition:</b>            AE 575, 577, 578, 583; F 577</p>
Make connections to real world situations	<p><b>Student Edition:</b>            574-575, 576-580, 582-588, 598 #3-#5, 605-610,            612-616, 621 #29-#31, 623 #11-#15, 624 #16-#17,            626 #27-#32, 627 #14, 629 #10  <i>Graphing Calculator Lab</i> 581, 611  <i>Spreadsheet Lab</i> 589-590</p> <p><b>Teacher Edition:</b>            AE 575, 577, 578, 583; F 577</p>