



# Algebra 2

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**Michigan  
Edition**

STANDARDS		PAGE REFERENCES
<b>STANDARD L1: REASONING ABOUT NUMBERS, SYSTEMS, AND QUANTITATIVE SITUATIONS</b>		
<b>L1.2 Representations and Relationships</b>		
<b>L1.2.1</b> Use mathematical symbols to represent quantitative relationships and situations.	<b>Student Edition:</b> 6-10, 33-39, 40-46  <b>Teacher Wraparound Edition:</b> A 10, 39, 46; CC 35; DI 8, 42; F 40; ICE 8, 34, 35, 36, 41, 42, 43; TT 43	
<b>L1.3 Counting and Probabilistic Reasoning</b>		
<b>L1.3.1</b> Describe, explain, and apply various counting techniques; relate combinations to Pascal's triangle; know when to use each technique.	<b>Student Edition:</b> 632-637, 638-643, 650 #73-#74, 657 #57, 687, 688 #8-#12, 693 #7-#12, 695 #16  <b>Teacher Wraparound Edition:</b> A 637, 643; DI 634, 640; H 632, 638; ICE 633, 634, 638, 640; PS 693	
<b>L1.3.2</b> Define and interpret commonly used expressions of probability.	<b>Student Edition:</b> 644-650, 651-657, 658-663, 670 #45-#50, 675 #33-#35, 676-680  <b>Teacher Wraparound Edition:</b> A 650, 657, 663, 680; DI 646, 654, 660; F 644; ICE 645, 646, 652, 653, 654, 659, 660, 677	

STANDARDS	PAGE REFERENCES
<b>L1.3.3</b> Recognize and explain common probability misconceptions such as “hot streaks” and “being due.”	<b>Student Edition:</b> 660 #3 <b>Teacher Wraparound Edition:</b> DI 660
<b>STANDARD L2: CALCULATION, ALGORITHMS, AND ESTIMATION</b>	
<b>L2.1 Calculation Using Real and Complex Numbers</b>	
<b>L2.1.3</b> Explain the exponential relationship between a number and its base 10 logarithm, and use it to relate rules of logarithms to those of exponents in expressions involving numbers.	<b>Student Edition:</b> 531-538, 541-546, 547-551 <i>Graphing Calculator Investigation</i> 552-553 <b>Teacher Wraparound Edition:</b> A 538, 546; DI 534, 542, 544, 548; F 531, 541; ICE 532, 533, 534, 542, 543, 548, 549; TT 532
<b>L2.1.5</b> Add, subtract, and multiply complex numbers; use conjugates to simplify quotients of complex numbers.	<b>Student Edition:</b> 270-275, 280 #67-#75, 281 #29-#30 <b>Teacher Wraparound Edition:</b> ICE 272, 273
<b>L2.2 Sequences and Iteration</b>	
<b>L2.2.1</b> Find the $n$ th term in arithmetic, geometric, or other simple sequences.	<b>Student Edition:</b> 578 ex 1, 579 ex 2, 580 #2, 581 #31-#40, 582 #43-#45, 584 ex 2-ex 3, 586 #12-#13, 587 #41-#44, 589 ex 2, 590 #4-#5, 591 #13-#20, 592 #1-#2, 596 ex 4 <b>Teacher Wraparound Edition:</b> A 582; F 578, 583; ICE 579, 583, 589; TT 579
<b>L2.2.2</b> Compute sums of finite arithmetic and geometric sequences.	<b>Student Edition:</b> 583, 584 ex 1, 585 ex 5, 586 #4-#7, 587 #39, 592 #54-#55, 594, 595 ex 1-ex 2, 596 #4-#7, 597 #15-#28, 598 #52-#54, 604 #52-#53 <b>Teacher Wraparound Edition:</b> F 584, 594; ICE 584, 585, 595, 596
<b>L2.2.3</b> Use iterative processes in such examples as computing compound interest or applying approximation procedures.	<b>Student Edition:</b> 599-604, 606-610, 618-621, 625 #36-#43, 627 #18 <b>Teacher Wraparound Edition:</b> A 610; AA 611; DI 601, 608, 619; ICE 600, 601, 607, 608, 619; TNT 610

STANDARDS	PAGE REFERENCES
<b>L2.3 Measurement Units, Calculations, and Scales</b>	
<b>L2.3.2</b> Describe and interpret logarithmic relationships in such contexts as the Richter scale, the pH scale, or decibel measurements; solve applied problems.	<b>Student Edition:</b> 520 #51-#55, 531, 535 #18-#20, 537 #68-#70, 542 ex 3, 544 #11-#12, 545 #37-#46, 547 ex 2, 549 #16 <i>Graphing Calculator Investigation</i> 539-540 <b>Teacher Wraparound Edition:</b> F 531; ICE 542, 548; T 539
<b>L2.4 Understanding Error</b>	
<b>L2.4.1</b> Determine what degree of accuracy is reasonable for measurements in a given situation; express accuracy through use of significant digits, error tolerance, or percent of error; describe how errors in measurements are magnified by computation; recognize accumulated error in applied situations.	<b>Student Edition:</b> 682-685, 692 #38-#39, 714 #68-#69, 738 #38-#40 <i>Study Tip</i> 704 <b>Teacher Wraparound Edition:</b> A 684; ICE 683
<b>L2.4.2</b> Describe and explain round-off error, rounding, and truncating.	<b>Student Edition:</b> 682-685, 692 #38-#39, 714 #68-#69, 738 #38-#40 <i>Study Tip</i> 704 <b>Teacher Wraparound Edition:</b> A 684; ICE 683
<b>L2.4.3</b> Know the meaning of and interpret statistical significance, margin of error, and confidence level.	<b>Student Edition:</b> 682-685, 692 #38-#39, 714 #68-#69, 738 #38-#40 <i>Study Tip</i> 704 <b>Teacher Wraparound Edition:</b> A 684; ICE 683
<b>STANDARD A1: EXPRESSIONS, EQUATIONS AND INEQUALITIES</b>	
<b>A1.1 Construction, Interpretation, and Manipulation of Expressions</b>	
<b>A1.1.1</b> Give a verbal description of an expression that is presented in symbolic form, write an algebraic expression from a verbal description, and evaluate expressions given values of the variables.	<b>Student Edition:</b> 59 ex 5, 61 #46-#51, 62 #57-#58, 74 #61-#64, 158 #46-#49 <b>Teacher Wraparound Edition:</b> ICE 59
<b>A1.1.4</b> Add, subtract, multiply, and simplify polynomials and rational expressions.	<b>Student Edition:</b> 229-232, 233-238, 244 #63-#68, 249 #71-#72, 256 #62-#62, 267 #54-#59, 277 #18-#24, 281 #9-#10, 472-478, 479-484 <b>Teacher Wraparound Edition:</b> A 232; DI 232, 235; ICE 229, 230, 233, 234, 235, 473, 474, 475, 480, 481

STANDARDS	PAGE REFERENCES
<p><b>A1.1.5</b> Divide a polynomial by a monomial.</p>	<p><b>Student Edition:</b> 222-228, 233 ex 1, 236 #4-#5, 238 #4</p> <p><b>Teacher Wraparound Edition:</b> ICE 223, 224, 233</p>
<p><b>A1.1.6</b> Transform exponential and logarithmic expressions into equivalent forms using the properties of exponents and logarithms, including the inverse relationship between exponents and logarithms.</p>	<p><b>Student Edition:</b> 531-538, 541-546, 547-551</p> <p><i>Graphing Calculator Investigation</i> 552-553</p> <p><b>Teacher Wraparound Edition:</b> A 538, 546; DI 534, 542, 544, 548; F 531, 541; ICE 532, 533, 534, 542, 543, 548, 549; TT 532</p>
<p><b>A1.2 Solutions of Equations and Inequalities</b></p>	
<p><b>A1.2.2</b> Associate a given equation with a function whose zeros are the solutions of the equation.</p>	<p><b>Student Edition:</b> 349 ex 3, 350 #12-#14, 351 #39-#44, 352 #57, 354 ex 2, 356 #13-#26, 358 #41, 361 ex 2, 369 #31, 370 #48, 374 ex 4, 375 #12, 376 #35-#40</p> <p><b>Teacher Wraparound Edition:</b> ICE 349, 354, 374</p>
<p><b>A1.2.5</b> Solve polynomial equations and equations involving rational expressions and justify steps in the solution.</p>	<p><b>Student Edition:</b> 301-305, 305-312, 313-319, 505-511, 516 #33-#38, 523-530, 531-538, 544 #21-#32, 548 ex 3, 549 #7-#12</p> <p><b>Teacher Wraparound Edition:</b> A 305; DI 303; ICE 302, 307, 308, 309, 314, 315, 506, 507</p>
<p><b>A1.2.7</b> Solve exponential and logarithmic equations and justify steps in the solution.</p>	<p><b>Student Edition:</b> 526 ex 5, 528 #16-#18, 533 ex 5, 534 ex 7, 535 #12-#15, 536 #55-#58, 538 #7-#10, 543 ex 5, 544 #7-#10, 545 #33-#34, 546 #54-#56, 547 ex 2, 548 ex 3, 549 #7, 550 #31-#34</p> <p><b>Teacher Wraparound Edition:</b> ICE 526, 533, 534, 543, 548</p>
<p><b>A1.2.8</b> Solve an equation involving several variables (with numerical or letter coefficients) for a designated variable, and justify steps in the solution.</p>	<p>This standard can be met in Glencoe's <i>Algebra 2</i> © 2008.</p> <p><b>Student Edition:</b> 21 ex 6, 23 #13-#14, 24 #50-#51, 25 #68, 32 #21, 51 #35-#38</p> <p><b>Teacher Wraparound Edition:</b> AE 21; PA 21; RW 21</p>

STANDARDS	PAGE REFERENCES
<p><b>A1.2.9</b> Know common formulas and apply appropriately in contextual situations.</p>	<p><b>Student Edition:</b> 8 ex 4, 9 #13-#15, 10 #58, 22 ex 6, 25 #27-#28, 26 #70, 27 #83, 32 #72-#73, 52 #10, 53 #16, 67 #60</p> <p><b>Teacher Wraparound Edition:</b> A 10; F 6; ICE 8, 22</p>
<p><b>A1.2.10</b> Use special values of the inverse trigonometric functions to solve trigonometric equations over specific intervals</p>	<p><b>Student Edition:</b> 799-804, 808 #42-#45, 809 #19-#22 <i>Graphing Calculator Investigation</i> 798</p> <p><b>Teacher Wraparound Edition:</b> A 804; ICE 800, 801, 802</p>
<b>STANDARD A2: FUNCTIONS</b>	
<b>A2.1 Definitions, Representations, and Attributes of Functions</b>	
<p><b>A2.1.1</b> Determine whether a relationship (given in contextual, symbolic, tabular, or graphical form) is a function, and identify its domain and range.</p>	<p><b>Student Edition:</b> 58 ex 2, 60 #4-#6, 61 #23-#34, 67 #64-#66, 101 #9-#12</p> <p><b>Teacher Wraparound Edition:</b> DI 58; ICE 58</p>
<p><b>A2.1.2</b> Read, interpret, and use function notation, and evaluate a function at a value in its domain.</p>	<p><b>Student Edition:</b> 59 ex 5, 61 #46-#51, 62 #57-#58, 74 #61-#64, 158 #46-#49</p> <p><b>Teacher Wraparound Edition:</b> ICE 59</p>
<p><b>A2.1.3</b> Represent functions in symbols, graphs, tables, diagrams, or words, and translate among representations.</p>	<p><b>Student Edition:</b> 56-62, 64 ex 3, 65 ex 5, 66 #27-#38, 67 #56-#57, 69 ex 2, 71 #7-#8, 72 #31-#36, 75-80, 86 #31-#32, 101 #20-#22</p> <p><b>Teacher Wraparound Edition:</b> A 80; DI 58; ICE 57, 58, 59, 64, 65, 69, 76, 77</p>
<p><b>A2.1.6</b> Identify the zeros of a function, the intervals where the values of a function are positive or negative, and describe the behavior of a function as <math>x</math> approaches positive or negative infinity, given the symbolic and graphical representations.</p>	<p><b>Student Edition:</b> 349 ex 4, 350 #12-#14, 351 #39-#44, 352 #57, 354 ex 2, 355 ex 4, 356 #6-#7, 357 #33, 358 #41, 364 #2, 371-377</p> <p><b>Teacher Wraparound Edition:</b> A 358; DI 349, 356; ICE 349, 354, 355, 372, 373</p>

STANDARDS	PAGE REFERENCES
<p><b>A2.1.7</b> Identify and interpret the key features of a function from its graph or its formula(s).</p>	<p><b>Student Edition:</b> 349 ex 4, 350 #12-#14, 351 #39-#44, 352 #57, 354 ex 2, 355 ex 4, 356 #6-#7, 357 #33, 358 #41, 364 #2, 371-377</p> <p><b>Teacher Wraparound Edition:</b> A 358; DI 349, 356; ICE 349, 354, 355, 372, 373</p>
<b>A2.2 Operations and Transformations with Functions</b>	
<p><b>A2.2.1</b> Combine functions by addition, subtraction, multiplication, and division.</p>	<p><b>Student Edition:</b> 383-389, 399 #43-#45, 403, 405 #20-#23</p> <p><b>Teacher Wraparound Edition:</b> ICE 383, 384, 385; TNT 384</p>
<p><b>A2.2.2</b> Apply given transformations to parent functions, and represent symbolically.</p>	<p><b>Student Edition:</b> 322-328, 335 #59-#61, 340 #45-#47 <i>Graphing Calculator Investigation</i> 70, 91, 320-321</p> <p><b>Teacher Wraparound Edition:</b> A 321, 328; DI 324; F 322; GCI 70, 91; H 322; ICE 91, 323, 324, 325; T 320; TNT 323</p>
<p><b>A2.2.3</b> Recognize whether a function (given in tabular or graphical form) has an inverse, and recognize simple inverse pairs.</p>	<p><b>Student Edition:</b> 390-394, 399 #40-#42, 404 #48-#52, 405 #18-#19</p> <p><b>Teacher Wraparound Edition:</b> A 394; AA 392; DI 391; ICE 391, 392</p>
<b>A2.3 Representations of Functions</b>	
<p><b>A2.3.1</b> Identify a function as a member of a family of functions based on its symbolic or graphical representation; recognize that different families of functions have different asymptotic behavior.</p>	<p><b>Student Edition:</b> 322-328, 335 #59-#61, 340 #45-#47 <i>Graphing Calculator Investigation</i> 70, 91, 320-321</p> <p><b>Teacher Wraparound Edition:</b> A 321, 328; DI 324; F 322; GCI 70, 91; H 322; ICE 91, 323, 324, 325; T 320; TNT 323</p>
<p><b>A2.3.3</b> Write the general symbolic forms that characterize each family of functions.</p>	<p><b>Student Edition:</b> 322-328, 335 #59-#61, 340 #45-#47 <i>Graphing Calculator Investigation</i> 70, 91, 320-321</p> <p><b>Teacher Wraparound Edition:</b> A 321, 328; DI 324; F 322; GCI 70, 91; H 322; ICE 91, 323, 324, 325; T 320; TNT 323</p>

STANDARDS	PAGE REFERENCES
<b>A2.4 Models of Real-World Situations Using Families of Functions</b>	
<b>A2.4.1</b> Identify the family of functions best suited for modeling a given real-world situation.	<b>Student Edition:</b> 322-328, 335 #59-#61, 340 #45-#47 <i>Graphing Calculator Investigation</i> 70, 91, 320-321 <b>Teacher Wraparound Edition:</b> A 321, 328; DI 324; F 322; GCI 70, 91; H 322; ICE 91, 323, 324, 325; T 320; TNT 323
<b>A2.4.2</b> Adapt the general symbolic form of a function to one that fits the specifications of a given situation by using the information to replace arbitrary constants with numbers.	<b>Student Edition:</b> 322-328, 335 #59-#61, 340 #45-#47 <i>Graphing Calculator Investigation</i> 70, 91, 320-321 <b>Teacher Wraparound Edition:</b> A 321, 328; DI 324; F 322; GCI 70, 91; H 322; ICE 91, 323, 324, 325; T 320; TNT 323
<b>A2.4.3</b> Using the adapted general symbolic form, draw reasonable conclusions about the situation being modeled.	<b>Student Edition:</b> 322-328, 335 #59-#61, 340 #45-#47 <i>Graphing Calculator Investigation</i> 70, 91, 320-321 <b>Teacher Wraparound Edition:</b> A 321, 328; DI 324; F 322; GCI 70, 91; H 322; ICE 91, 323, 324, 325; T 320; TNT 323
<b>Standard A3: FAMILIES OF FUNCTIONS</b>	
<b>A3.2 Exponential and Logarithmic Functions</b>	
<b>A3.2.2</b> Interpret the symbolic forms and recognize the graphs of exponential and logarithmic functions.	<b>Student Edition:</b> 531-538, 541-546, 547-551 <i>Graphing Calculator Investigation</i> 552-553 <b>Teacher Wraparound Edition:</b> A 538, 546; DI 534, 542, 544, 548; F 531, 541; ICE 532, 533, 534, 542, 543, 548, 549; TT 532
<b>A3.2.3</b> Apply properties of exponential and logarithmic functions.	<b>Student Edition:</b> 531-538, 541-546, 547-551 <i>Graphing Calculator Investigation</i> 552-553 <b>Teacher Wraparound Edition:</b> A 538, 546; DI 534, 542, 544, 548; F 531, 541; ICE 532, 533, 534, 542, 543, 548, 549; TT 532

STANDARDS	PAGE REFERENCES
<b>A3.6 Rational Functions</b>	
<b>A3.6.1</b> Write the symbolic form and sketch the graph of simple rational functions.	<b>Student Edition:</b> 485-490, 498 #58-#60, 504 #42-#44, 514, 517 #12-#13 <i>Graphing Calculator Investigation</i> 491 <b>Teacher Wraparound Edition:</b> A 490, 491; DI 486, 488; ICE 486, 487; T 491
<b>A3.6.2</b> Analyze graphs of simple rational functions and understand the relationship between the zeros of the numerator and denominator, and the function's intercepts, asymptotes, and domain.	<b>Student Edition:</b> 485-490, 498 #58-#60, 504 #42-#44, 514, 517 #12-#13 <i>Graphing Calculator Investigation</i> 491 <b>Teacher Wraparound Edition:</b> A 490, 491; DI 486, 488; ICE 486, 487; T 491
<b>A3.7 Trigonometric Functions</b>	
<b>A3.7.1</b> Use the unit circle to define sine and cosine; approximate values of sine and cosine; use sine and cosine to define the remaining trigonometric functions; explain why the trigonometric functions are periodic.	<b>Student Edition:</b> 701-708, 714 #64-#67, 715 #4, 717-724, 732 #46-#48, 738 #43-#45, 739-745 <i>Spreadsheet Investigation</i> 700 <b>Teacher Wraparound Edition:</b> A 724, 745; CC 704; DI 718; GCI 740; ICE 702, 703, 704, 718, 719, 720, 740, 741, 742
<b>A3.7.2</b> Use the relationship between degree and radian measures to solve problems.	<b>Student Edition:</b> 74 ex 2-ex 3, 712 #8-#13, 713 #27-#42, 714 #62, 715 #5-#8, 754 #16-#19 <i>Key Concept</i> 711 <b>Teacher Wraparound Edition:</b> ICE 711
<b>A3.7.3</b> Use the unit circle to determine the exact values of sine and cosine, for integer multiples of $\pi/6$ and $\pi/4$ .	<b>Student Edition:</b> 701-708, 714 #64-#67, 715 #4, 717-724, 732 #46-#48, 738 #43-#45, 739-745 <i>Spreadsheet Investigation</i> 700 <b>Teacher Wraparound Edition:</b> A 724, 745; CC 704; DI 718; GCI 740; ICE 702, 703, 704, 718, 719, 720, 740, 741, 742
<b>A3.7.4</b> Graph the sine and cosine functions; analyze graphs by noting domain, range, period, amplitude, and location of maxima and minima.	<b>Student Edition:</b> 762-768, 769-776, 781 #48-#49, 785 #47-#49, 805 #9-#14, 806 #15-#18, 809 #25 <b>Teacher Wraparound Edition:</b> A 768, 776; CC 764; DI 763, 773; GCI 770; ICE 765, 766, 770, 771, 772, 773; TT 763, 771

STANDARDS	PAGE REFERENCES
<p><b>A3.7.5</b> Graph transformations of basic trigonometric functions (involving changes in period, amplitude, phase, and midline) and understand the relationship between constants in the formula and the transformed graph.</p>	<p><b>Student Edition:</b> 762-768, 769-776, 781 #48-#49, 785 #47-#49, 805 #9-#14, 806 #15-#18, 809 #25</p> <p><b>Teacher Wraparound Edition:</b> A 768, 776; CC 764; DI 763, 773; GCI 770; ICE 765, 766, 770, 771, 772, 773; TT 763, 771</p>
<b>STANDARD G1: FIGURES AND THEIR PROPERTIES</b>	
<b>G1.7 Conic Sections and Their Properties</b>	
<p><b>G1.7.1</b> Find an equation of a circle given its center and radius; given the equation of a circle, find its center and radius.</p>	<p><b>Student Edition:</b> 426-431, 440 #44-#47, 448 #50, 450 #6, 463 #22-#29, 468 #8</p> <p><b>Teacher Wraparound Edition:</b> A 431; ICE 427, 428, 450</p>
<p><b>G1.7.2</b> Identify and distinguish among geometric representations of parabolas, circles, ellipses, and hyperbolas; describe their symmetries, and explain how they are related to cones.</p>	<p><b>Student Edition:</b> 419-425, 426-431, 433-440, 449-452 <i>Algebra Activity</i> 432</p> <p><b>Teacher Wraparound Edition:</b> A 425, 431, 440, 448; AA 421; DI 420, 422, 435, 443; F 441; ICE 420, 421, 422, 427, 428, 434, 435, 436; T 432</p>
<p><b>G1.7.3</b> Graph ellipses and hyperbolas with axes parallel to the <math>x</math>- and <math>y</math>-axes, given equations.</p>	<p><b>Student Edition:</b> 433-440, 441-448, 452 #48, 464 #30-#33, 465 #34-#38, 469 #20 <i>Algebra Activity</i> 432</p> <p><b>Teacher Wraparound Edition:</b> A 440, 448; DI 435, 442; ICE 434, 435, 436, 442, 443, 444; T 432</p>
<b>STANDARD S1: UNIVARIATE DATA-EXAMINING DISTRIBUTIONS</b>	
<b>S1.1 Producing and Interpreting Plots</b>	
<p><b>S1.1.1</b> Construct and interpret dot plots, histograms, relative frequency histograms, bar graphs, basic control charts, and box plots with appropriate labels and scales; determine which kinds of plots are appropriate for different types of data; compare data sets and interpret differences based on graphs and summary statistics.</p>	<p><b>Student Edition:</b> 664-670, 680 #47, 690 #26-#28, 695 #19-#21, 826-827, 855, 873 #11-#13</p> <p><b>Teacher Wraparound Edition:</b> A 670; ICE 665; TNT 668; W 664</p>

STANDARDS	PAGE REFERENCES
<p><b>S1.1.2</b> Given a distribution of a variable in a data set, describe its shape, including symmetry or skewness, and state how the shape is related to measures of center (mean and median) and measures of variation (range and standard deviation) with particular attention to the effects of outliers on these measures.</p>	<p><b>Student Edition:</b> 671-675, 680 #44-#46, 691 #29-#32, 693 #1, 695 #21</p> <p><b>Teacher Wraparound Edition:</b> A 675; DI 672; ICE 672</p>
<p><b>S1.2 Measures of Center and Variation</b></p>	
<p><b>S1.2.1</b> Calculate and interpret measures of center including: mean, median, and mode; explain uses, advantages and disadvantages of each measure given a particular set of data and its context.</p>	<p><b>Student Edition:</b> 664-670, 680 #47, 690 #26-#28, 695 #19-#21, 826-827, 855, 873 #11-#13</p> <p><b>Teacher Wraparound Edition:</b> A 670; ICE 665; TNT 668; W 664</p>
<p><b>S1.2.2</b> Estimate the position of the mean, median, and mode in both symmetrical and skewed distributions, and from a frequency distribution or histogram.</p>	<p><b>Student Edition:</b> 671-675, 680 #44-#46, 691 #29-#32, 693 #1, 695 #21</p> <p><b>Teacher Wraparound Edition:</b> A 675; DI 672; ICE 672</p>
<p><b>S1.2.3</b> Compute and interpret measures of variation, including percentiles, quartiles, interquartile range, variance, and standard deviation.</p>	<p><b>Student Edition:</b> 664-670, 680 #47, 690 #26-#28, 695 #19-#21, 826-827, 855, 873 #11-#13</p> <p><b>Teacher Wraparound Edition:</b> A 670; ICE 665; TNT 668; W 664</p>
<p><b>S1.3 The Normal Distribution</b></p>	
<p><b>S1.3.1</b> Explain the concept of distribution and the relationship between summary statistics for a data set and parameters of a distribution.</p>	<p><b>Student Edition:</b> 671-675, 680 #44-#46, 691 #29-#32, 693 #1, 695 #21</p> <p><b>Teacher Wraparound Edition:</b> A 675; DI 672; ICE 672</p>
<p><b>S1.3.2</b> Describe characteristics of the normal distribution, including its shape and the relationships among its mean, median, and mode.</p>	<p><b>Student Edition:</b> 671-675, 680 #44-#46, 691 #29-#32, 693 #1, 695 #21</p> <p><b>Teacher Wraparound Edition:</b> A 675; DI 672; ICE 672</p>
<p><b>S1.3.3</b> Know and use the fact that about 68%, 95%, and 99.7% of the data lie within one, two, and three standard deviations of the mean, respectively in a normal distribution.</p>	<p><b>Student Edition:</b> 671-675, 680 #44-#46, 691 #29-#32, 693 #1, 695 #21</p> <p><b>Teacher Wraparound Edition:</b> A 675; DI 672; ICE 672</p>

STANDARDS	PAGE REFERENCES
<b>S1.3.4</b> Calculate z-scores, use z-scores to recognize outliers, and use z-scores to make informed decisions.	This standard can be met in Glencoe's <i>MathMatters 3</i> © 2009. <b>Student Edition:</b> Lesson 9-7, page 413
<b>STANDARD S3: SAMPLES, SURVEYS, AND EXPERIMENTS</b>	
<b>S3.1 Data Collection and Analysis</b>	
<b>S3.1.1</b> Know the meanings of a sample from a population and a census of a population, and distinguish between sample statistics and population parameters.	<b>Student Edition:</b> 632, 634 #1, 636 #25, 643 #44, 646 ex 4, 647 #13-#14, 649 #55-#60, 689 #18 <b>Teacher Wraparound Edition:</b> H 632; I 633, 634, 646
<b>S3.1.2</b> Identify possible sources of bias in data collection, sampling methods and simple experiments; describe how such bias can be reduced and controlled by random sampling; explain the impact of such bias on conclusions made from analysis of the data; and know the effect of replication on the precision of estimates.	<b>Student Edition:</b> 682 ex 1, 683 #2, 684 #4-#5 <b>Teacher Wraparound Edition:</b> DI 683; ICE 683
<b>S3.1.3</b> Distinguish between an observational study and an experimental study, and identify, in context, the conclusions that can be drawn from each.	<b>Student Edition:</b> 682 ex 1, 683 #2, 684 #4-#5 <b>Teacher Wraparound Edition:</b> DI 683; ICE 683
<b>STANDARD S4: PROBABILITY MODELS AND PROBABILITY CALCULATIONS</b>	
<b>S4.1 Probability</b>	
<b>S4.1.1</b> Understand and construct sample spaces in simple situations.	<b>Student Edition:</b> 632, 634 #1, 636 #25, 643 #44, 646 ex 4, 647 #13-#14, 649 #55-#60, 689 #18 <b>Teacher Wraparound Edition:</b> H 632; I 633, 634, 646
<b>S4.1.2</b> Define mutually exclusive events, independent events, dependent events, compound events, complementary events, and conditional probabilities; and use the definitions to compute probabilities.	<b>Student Edition:</b> 644-650, 651-657, 658-663, 670 #45-#50, 675 #33-#35, 676-680 <b>Teacher Wraparound Edition:</b> A 650, 657, 663, 680; DI 646, 654, 660; F 644; ICE 645, 646, 652, 653, 654, 659, 660, 677

STANDARDS	PAGE REFERENCES
<b>S4.2 Application and Representation</b>	
<p><b>S4.2.1</b> Compute probabilities of events using tree diagrams, formulas for combinations and permutations, Venn diagrams, or other counting techniques.</p>	<p><b>Student Edition:</b> 632-637, 638-643, 650 #73-#74, 657 #57, 687, 688 #8-#12, 693 #7-#12, 695 #16</p> <p><b>Teacher Wraparound Edition:</b> A 637, 643; DI 634, 640; H 632, 638; ICE 633, 634, 638, 640; PS 693</p>
<p><b>S4.2.2</b> Apply probability concepts to practical situations, in such settings as finance, health, ecology, or epidemiology to make informed decisions.</p>	<p><b>Student Edition:</b> 644-650, 651-657, 658-663, 670 #45-#50, 675 #33-#35, 676-680</p> <p><b>Teacher Wraparound Edition:</b> A 650, 657, 663, 680; DI 646, 654, 660; F 644; ICE 645, 646, 652, 653, 654, 659, 660, 677</p>