



# Algebra 2

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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> 35 ex 2, 42 ex 2, 43 ex 3, 44 #6, 532 ex 4, 631, 633 #14-#15, 634 #38-#43, 646 #6-#11, 647 #48-#51, 648 #55-#58, 652 ex 2, 653 #6-#9, 654 #39-#40, 675 #21, 676 #33, 679 #11-#12 <i>Reading Math</i> 35, 40 <b>Teacher Wraparound Edition:</b> AE 35, 42, 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> 684-689, 690-695, 702 #41-#44, 709 #57, 716 #1-#8, 746 #9-#12, 751 #1-#9, 753 #12 <i>Reading Math</i> 696 <b>Teacher Wraparound Edition:</b> A 695; AE 685, 686, 691, 692; DI 692; F 686; PA 689; T 684, 690; TNT 685
<b>L1.3.2</b> Define and interpret commonly used expressions of probability.	<b>Student Edition:</b> 697-702, 709 #55-#56, 746 #13-#14 <b>Teacher Wraparound Edition:</b> A 702; AE 698, 699; T 697

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<b>L1.3.3</b> Recognize and explain common probability misconceptions such as “hot streaks” and “being due.”	<b>Student Edition:</b> 714 #42
<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> 509-517, 520-526, 528-533 <b>Teacher Wraparound Edition:</b> A 517, 526; AE 510, 512, 513, 521, 522, 523, 529, 531; DI 513; F 510, 522, 530; I 521; PA 523; T 509; TNT 510
<b>L2.1.5</b> Add, subtract, and multiply complex numbers; use conjugates to simplify quotients of complex numbers.	<b>Student Edition:</b> 259-266, 267 #19-#22, 275 #69-#70, 283 #59-#61, 304 #34-#37, 307 #18-#19 <b>Teacher Wraparound Edition:</b> A 266; AE 260, 262, 263; F 263
<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> 622-628, 635 #66-#67, 636-641, 656 #1-#2, 675 #9-#12, 676 #23-#26, 679 #2 <b>Teacher Wraparound Edition:</b> A 628; AE 623, 624, 625; F 623; I 624; T 622; TNT 623, 624, 625
<b>L2.2.2</b> Compute sums of finite arithmetic and geometric sequences.	<b>Student Edition:</b> 629-635, 641 #61-#62, 643-649, 655 #57, 656 #6-#7, 662 #43-#44, 675 #18-#21, 676 #3-#33, 679 #10 <b>Teacher Wraparound Edition:</b> A 649; AE 630, 631, 632, 644, 645, 646; F 631; PA 635; T 629; TNT 635
<b>L2.2.3</b> Use iterative processes in such examples as computing compound interest or applying approximation procedures.	<b>Student Edition:</b> 658-662, 669 #46-#47, 673 #37-#38, 677 #41-#42, 679 #17 <i>Algebra Lab</i> 663 <i>Spreadsheet Lab</i> 657 <b>Teacher Wraparound Edition:</b> A 662, 663; AE 659, 660; F 660; PA 662; T 663; TNT 659, 662

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<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> 514 #13-#15, 515 #50-#51, 516 #65-#66, 517 #74, 522 ex 3, 524 #21, 525 #39-#41, 527 #15-#17, 529 ex 2, 531 #4, 532 #53-#54, 533 #60, 554 #31, 555 #48 <i>Get Ready</i> 509 <b>Teacher Wraparound Edition:</b> AE 522, 529; RW 522; T 509
<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> 742 ex 3, 743 #3-#5, 750 #36-#38 <i>Study Tip</i> 762 <b>Teacher Wraparound Edition:</b> AE 742; F 743
<b>L2.4.2</b> Describe and explain round-off error	<b>Student Edition:</b> <i>Study Tip</i> 762
<b>L2.4.3</b> Know the meaning of and interpret statistical significance, margin of error, and confidence level.	<b>Student Edition:</b> 741-744, 750 #36-#39 <b>Teacher Wraparound Edition:</b> AE 742; DI 742; F 743; T 741
<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> 18 ex 1, 22 #1-#4, 23 #17-#26, 24 #48-#49, 32 #16-#17 <b>Teacher Wraparound Edition:</b> AE 19; T 18
<b>A1.1.4</b> Add, subtract, multiply, and simplify polynomials and rational expressions.	<b>Student Edition:</b> 320-324, 330 #48-#51, 345 #54-#55, 375 #16-#20, 379 #2-#6, 442-449, 450-456, 463 #57-#58, 471 #56-#58, 490 #9-#21, 493 #5-#6 <b>Teacher Wraparound Edition:</b> A 446; AE 321, 443, 444, 445, 446, 451, 452; F 322

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<p><b>A1.1.5</b> Divide a polynomial by a monomial.</p>	<p><b>Student Edition:</b> 325-330, 338 #59-#61, 345 #52-#53, 375 #21-#24, 378 #59-#64, 379 #5-#6</p> <p><b>Teacher Wraparound Edition:</b> AE 326</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> 509-517, 520-526, 528-533</p> <p><b>Teacher Wraparound Edition:</b> A 517, 526; AE 510, 512, 513, 521, 522, 523, 529, 531; DI 513; F 510, 522, 530; I 521; PA 523; T 509; TNT 510</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> 246-251, 258 #56-#58, 266 #82-#83, 267 #5, 303 #15-#19, 352 ex 5</p> <p><i>Reading Math</i> 245</p> <p><b>Teacher Wraparound Edition:</b> AE 247, 248, 352; F 248; TNT 249</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> 352 ex 5, 353 #11-#12, 361 #55-#57, 362-368, 371 #3-#6, 377 #42-#44, 379 #19-#24, 479-486, 492 #39-#44, 493 #11-#16, 506 #67-#69, 517 #79-#80</p> <p><i>Graphing Calculator Lab</i> 487-488</p> <p><b>Teacher Wraparound Edition:</b> AE 352, 363, 364, 480, 481; F 480; TNT 480</p>
<p><b>A1.2.7</b> Solve exponential and logarithmic equations and justify steps in the solution.</p>	<p><b>Student Edition:</b> 538 ex 4, 539 ex 6, 540 #33-#40, 541 #47-#54, 542 #70-#71, 545 ex 2, 549 #21, 550 #27-#29, 554 #36-#38, 555 #51-#56, 556 ex 9, 557 #9-#16</p> <p><i>Graphing Calculator Lab</i> 507-508, 534-535</p> <p><b>Teacher Wraparound Edition:</b> A 542; AE 538, 539, 545, 546; TNT 540</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><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>

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<p><b>A1.2.9</b> Know common formulas and apply appropriately in contextual situations.</p>	<p><b>Student Edition:</b> 71-77, 84 #43-#45, 85 #11-#14, 91 #23-#24, 108 #23-#24, 111 #16-#19, 276-283, 292 #61-#63, 305 #44-#46, 504 #36-#38, 562-566, 573 #48-#50, 579 #54-#56, 589 #3-#6, 610 #8-#17 <i>Study Tip</i> 538</p> <p><b>Teacher Wraparound Edition:</b> AE 72; PA 21; RW 72</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> 763 ex 5, 806-811, 816 #47-#51, 817 #15-#16, 819 #10, 828 #46-#48, 836 #53-#56</p> <p><b>Teacher Wraparound Edition:</b> A 811; AE 763; 807, 808; DI 808; F 809; TNT 807</p>
<p><b>STANDARD A2: FUNCTIONS</b></p>	
<p><b>A2.1 Definitions, Representations, and Attributes of Functions</b></p>	
<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> 58-64, 70 #61-#62, 85 #4-#5, 105 #44-#46, 107 #7-#10, 106 #5</p> <p><b>Teacher Wraparound Edition:</b> AE 59, 60; F 59; I 59; TNT 61</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> 58-64, 77 #60-#63, 85 #2, 95-101, 107 #11-#14, 110 #39-#44, 111 #3-#4, 345 #46-#51</p> <p><b>Teacher Wraparound Edition:</b> A 64; AE 61, 97, 98</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> 58-64, 70 #61-#62, 85 #4-#5, 105 #44-#46, 107 #7-#10, 106 #5, 112 #1, 113 #8</p> <p><b>Teacher Wraparound Edition:</b> AE 59, 60; F 59; I 59; TNT 61</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> 68 ex 4, 69 #28-#33, 71-77, 107 #20-#21, 286-292 <i>Graphing Calculator Lab</i> 78</p> <p><b>Teacher Wraparound Edition:</b> A 285; AA 111; AE 68, 72, 287, 288, 289; F 72; I 73, 80, 81; PA 292</p>

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<b>A2.1.7</b> Identify and interpret the key features of a function from its graph or its formula(s).	<b>Student Edition:</b> 68 ex 4, 69 #28-#33, 71-77, 107 #20-#21, 286-292 <i>Graphing Calculator Lab 78</i> <b>Teacher Wraparound Edition:</b> A 285; AA 111; AE 68, 72, 287, 288, 289; F 72; I 73, 80, 81; PA 292
<b>A2.2 Operations and Transformations with Functions</b>	
<b>A2.2.1</b> Combine functions by addition	<b>Student Edition:</b> 321 ex 2b, 322 #4, 323 #21-#22, 345 #54, 375 #16, 379 #4, 384 ex 1, 388 #1-#2, 396 #47-#49, 401 #39-#41, 407 #1, 435 #3 <b>Teacher Wraparound Edition:</b> AE 321, 385
<b>A2.2.2</b> Apply given transformations to parent functions	<b>Student Edition:</b> 73, 78, 97, 284-287, 302, 397, 436 #3, 499 <b>Teacher Wraparound Edition:</b> A 78, 285; GCL 97; T 284
<b>A2.2.3</b> Recognize whether a function (given in tabular or graphical form) has an inverse	<b>Student Edition:</b> 391-396, 401 #36-#38, 406 #61, 407 #9-#10, 431 #17-#22, 435 #1-#2 <b>Teacher Wraparound Edition:</b> A 396; AE 392, 393; AL 394; DI 392; I 393; TNT 393
<b>A2.3 Representations of Functions</b>	
<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.	<b>Student Edition:</b> 73, 78, 97, 284-287, 302, 397, 436 #3, 499 <b>Teacher Wraparound Edition:</b> A 78, 285; GCL 97; T 284
<b>A2.3.3</b> Write the general symbolic forms that characterize each family of functions	<b>Student Edition:</b> 473-478, 486 #44-#46, 492 #37-#38, 493 #7-#8, 499 <i>Key Concept 824</i> <b>Teacher Wraparound Edition:</b> AE 474, 475; TNT 476

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<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> 500 ex 3, 503 #10-#11, 504 #36-#38, 505 #53-#54, 544-550, 553 #18, 556 #58-#61, 559 #8 <i>Graphing Calculator Lab</i> 252, 293, 346-347, 518-519, 551 <b>Teacher Wraparound Edition:</b> AE 500
<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> 500 ex 3, 503 #10-#11, 504 #36-#38, 505 #53-#54, 544-550, 553 #18, 556 #58-#61, 559 #8 <i>Graphing Calculator Lab</i> 252, 293, 346-347, 518-519, 551 <b>Teacher Wraparound Edition:</b> AE 500
<b>A2.4.3</b> Using the adapted general symbolic form, draw reasonable conclusions about the situation being modeled.	<b>Student Edition:</b> 500 ex 3, 503 #10-#11, 504 #36-#38, 505 #53-#54, 544-550, 553 #18, 556 #58-#61, 559 #8 <i>Graphing Calculator Lab</i> 252, 293, 346-347, 518-519, 551 <b>Teacher Wraparound Edition:</b> AE 500
<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> 498-506, 509-517 <i>Graphing Calculator Lab</i> 518-519 <b>Teacher Wraparound Edition:</b> A 506, 519; AE 499, 500; F 500; PA 506; TNT 499, 500
<b>A3.2.3</b> Apply properties of exponential and logarithmic functions.	<b>Student Edition:</b> 509-517, 520-526, 527 #5-#6, 528-533, 536-542, 553 #19-#26, 554 #32-#34, 557 #1-#6 <b>Teacher Wraparound Edition:</b> A 517, 526; AE 510, 512, 514, 521, 522, 523; F 511, 522; I 521; PA 523; TNT 521

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<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> 457-463, 471 #53-#55, 472 #15-#16, 478 #41-#43, 491 #24-#29 <i>Graphing Calculator Lab</i> 464 <b>Teacher Wraparound Edition:</b> A 463; AE 458, 459; TNT 459
<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> 457-463, 471 #53-#55, 472 #15-#16, 478 #41-#43, 491 #24-#29 <i>Graphing Calculator Lab</i> 464 <b>Teacher Wraparound Edition:</b> A 463; AE 458, 459; TNT 459
<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 (e.g., $\sin 3$ , or $\cos 0.5$ ); use sine and cosine to define the remaining trigonometric functions; explain why the trigonometric functions are periodic.	<b>Student Edition:</b> 759-767, 768-774, 776-783, 784 #4 <i>Key Concept</i> 801 <b>Teacher Wraparound Edition:</b> A 767; AE 760, 761, 762, 763, 764, 777, 779, 780, 781; DI 760; F 760; I 761, 777; TNT 778
<b>A3.7.2</b> Use the relationship between degree and radian measures to solve problems.	<b>Student Edition:</b> 771 ex 3, 772 #5-#10, 773 #40-#47, 774 #62, 783 #56-#58, 784 #6-#9, 817 #5-#10 <i>Key Concept</i> 770 <i>Reading Math</i> 770 <b>Teacher Wraparound Edition:</b> DI 779
<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> 759-767, 768-774, 776-783, 784 #4 <i>Key Concept</i> 801 <b>Teacher Wraparound Edition:</b> A 767; AE 760, 761, 762, 763, 764, 777, 779, 780, 781; DI 760; F 760; I 761, 777; TNT 778
<b>A3.7.4</b> Graph the sine and cosine, functions; analyze graphs by noting domain, range, period, amplitude, location of maxima and minima, and asymptotes.	<b>Student Edition:</b> 822-828, 829-836, 836 #50-#52, 841 #50-#52, 846 #49, 847 #1, 868 #10-#15 <b>Teacher Wraparound Edition:</b> A 828, 836; AE 825, 826, 830, 831, 832, 833; DI 823, 833; F 824; TNT 823

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<p>A3.7.5 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> 829-836, 841 #48-#49, 846 #46-#48, 847 #6-#9, 868 #17-#20, 871 #1-#3</p> <p><b>Teacher Wraparound Edition:</b> A 836; AE 830, 831, 832, 833; DI 833</p>
<p><b>STANDARD G1: FIGURES AND THEIR PROPERTIES</b></p>	
<p><b>G1.7 Conic Sections and Their Properties</b></p>	
<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> 574-579, 588 #39-#40, 589 #14, 611 #24-#27</p> <p><b>Teacher Wraparound Edition:</b> A 579; AE 575, 576; F 575; PA 576</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> 567-573, 598-602, 608 #53-#54, 613 #44-#51</p> <p><b>Teacher Wraparound Edition:</b> AE 568, 569, 570, 571, 599; F 570, 599; I 568</p>
<p><b>G1.7.3</b> Graph ellipses and hyperbolas with axes parallel to the x- and y-axes, given equations.</p>	<p><b>Student Edition:</b> 581-588, 590-597, 598 ex 1, 600 #9-#18, 601 #33-#40, 608 #53-#54, 612 #34-#36, 613 #44-#51, 615 #7-#16</p> <p><b>Teacher Wraparound Edition:</b> AE 582, 583, 584, 585, 591, 592, 593; F 582, 584; I 583; PA 588</p>
<p><b>STANDARD S1: UNVARIATE DATA-EXAMINING DISTRIBUTIONS</b></p>	
<p><b>S1.1 Producing and Interpreting Plots</b></p>	
<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> 699 ex 3, 700 #6-#7, 701 #22-#27, 885, 886-887, 888, 889-890</p> <p><b>Teacher Wraparound Edition:</b> AE 699</p>
<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> 724-728, 733 #30-#31, 739 #42-#44, 744 #34-#35, 748 #24-#29</p> <p><b>Teacher Wraparound Edition:</b> A 728; AE 725; F 725</p>

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<b>S1.2 Measures of Center and Variation</b>	
<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.	<b>Student Edition:</b> 717-723, 739 #45, 748 #22-#23, 883-884 <b>Teacher Wraparound Edition:</b> A 723; AE 718; F 718; PA 723; TNT 718, 721
<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.	<b>Student Edition:</b> 724-728 <b>Teacher Wraparound Edition:</b> A 728; AE 725; F 725
<b>S1.2.3</b> Compute and interpret measures of variation, including percentiles, quartiles, interquartile range, variance, and standard deviation.	<b>Student Edition:</b> 717-723, 728 #32-#33, 748 #22-#23 <b>Teacher Wraparound Edition:</b> A 723; AE 718; F 718; PA 723; TNT 718, 721
<b>S1.3 The Normal Distribution</b>	
<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.	<b>Student Edition:</b> 724-728, 733 #30-#31, 739 #42-#44, 744 #34-#35, 748 #24-#29 <b>Teacher Wraparound Edition:</b> A 728; AE 725; F 725
<b>S1.3.2</b> Describe characteristics of the normal distribution, including its shape and the relationships among its mean, median, and mode.	<b>Student Edition:</b> 724-728, 733 #30-#31, 739 #42-#44, 744 #34-#35, 748 #24-#29 <b>Teacher Wraparound Edition:</b> A 728; AE 725; F 725
<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.	<b>Student Edition:</b> 724-728, 733 #30-#31, 739 #42-#44, 744 #34-#35, 748 #24-#29 <b>Teacher Wraparound Edition:</b> A 728; AE 725; F 725
<b>S1.3.4</b> Calculate z-scores, use z-scores to recognize outliers, and use z-scores to make informed decisions.	Without naming or defining z-scores, this standard can be met in the following section. <b>Student Edition:</b> 724-728 <b>Teacher Wraparound Edition:</b> A 728; AE 725; F 725

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<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> 741-744, 750 #36-#38 <b>Teacher Wraparound Edition:</b> A 743; AE 742; DI 742; F 743; T 741
<b>S3.1.2</b> Identify possible sources of bias in data collection and 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> 741-744, 750 #36-#38 <b>Teacher Wraparound Edition:</b> A 743; AE 742; DI 742; F 743; T 741
<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> 741-744, 750 #36-#38 <b>Teacher Wraparound Edition:</b> A 743; AE 742; DI 742; F 743; T 741
<b>STANDARD S4: PROBABILITY MODELS AND PROBABILITY CALCULATION</b>	
<b>S4.1 Probability</b>	
<b>S4.1.1</b> Understand and construct sample spaces in simple situations (e.g., tossing two coins, rolling two number cubes and summing the results).	<b>Student Edition:</b> 684-689, 690-695, 702 #41-#43, 716 #1-#4 <i>Reading Math</i> 696 <b>Teacher Wraparound Edition:</b> A 689; AE 685, 686, 691, 692; DI 692; F 686; PA 689
<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> 703-709, 710-715, 716 #13-#16, 723 #44-#47 <b>Teacher Wraparound Edition:</b> A 709, 715; AE 704, 705, 706, 711, 712; F 705, 712; I 704, 712; TNT 704, 712
<b>S4.2 Application and Representation</b>	
<b>S4.2.1</b> Compute probabilities of events using tree diagrams, formulas for combinations and permutations, Venn diagrams, or other counting techniques.	<b>Student Edition:</b> 684-689, 690-695, 697-702, 714 #45, 728 #34-#36, 733 #32-#34, 753 #12 <i>Reading Math</i> 696 <b>Teacher Wraparound Edition:</b> A 689; AE 685, 686, 691, 692; DI 692; F 686; PA 689

STANDARDS	PAGE REFERENCES
<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> 701 #29-#31, 702 #38, 707 #28, 708 #36, 714 #45</p>