



NEW YORK
High School Math A/Math B
***Algebra 1* © 2005 and *Geometry* © 2005**

| OBJECTIVES | PAGE REFERENCES | |
|---|---|---|
| | <i>Algebra 1</i> Math A | <i>Geometry</i> |
| Key Idea 1 Mathematical Reasoning Students use mathematical reasoning to analyze mathematical situations, make conjectures, gather evidence, and construct an argument. | | |
| 1A. Construct valid arguments. | SE: 37-39, 40 #10-12, 121 #2, 151, 240-242, 243 #9-11, 244 #27-28, 616-618, 625 #4 <i>Algebra Activity</i> 783 <i>Reading Mathematics</i> 239 | SE: 62-63, 65 #38-#40, 66 #42, 67-71, 82-83, 89-91, 94-96, 101-103, 255-257 <i>Geometry Activity</i> 88 |
| 1B. Follow and judge the validity of arguments. | SE: 37-39, 40 #18-23, 41 #46, 42 #50, 611-612, 709 #2, 710 #7, 711 #15 <i>Reading Mathematics</i> 714 | SE: 64 #4-#5, 65 #38-#40, 66 #42, 72 #15-#17, 84 #6-#7, 92 #22-#28, 98 #24-#25, 105 #25-#27, 259 #28-#30 <i>Reading Mathematics</i> 81 |
| Key Idea 2 Number and Numeration Students use number sense and numeration to develop an understanding of the multiple uses of numbers in the real world, the use of numbers to communicate mathematically, and the use of numbers in the development of mathematical ideas. | | |
| 2A. Understand and use rational and irrational numbers. | SE: 68-70, 72 #62, 73-75, 76 #1, 78 #65, 79-81, 82 #55, 84-85, 86 #3, 104-106 | SE: 122 #1 |
| 2B. Recognize the order of real numbers. | SE: 68-69, 71 #42, 72 #58, 88-89, 92 #14, 104-106, 107 #17-18, 108 #64-69, 233-235, 236 #6-7 | SE: 122 #1 |
| 2C. Apply the properties of real numbers to various subsets of numbers. | SE: 68-69, 70 #17, 104-106, 107 #1-3 | SE: 94-95, 247, 734-735 |

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| | <i>Algebra 1</i> | <i>Geometry</i> |
| Key Idea 3 Operations Students use mathematical operations and relationships among them to understand mathematics. | | |
| 3A. Use addition, subtraction, multiplication, division, and exponentiation with real numbers and algebraic expressions. | SE: 73-75, 77 #39-56, 78 #67-69, 79-81, 82 #42-49, 84-85, 87 #47-54, 103-106, 410-412, 417-420 | SE: 5 #9-#12, 58 #3, 59 #10, 737-740 |
| 3B. Use integral exponents on integers and algebraic expressions. | SE: 410-412, 413 #7-12, 414 #49-50, 417-420, 421 #4-12, 422 #45-46, 425-427, 508-512 <i>Algebra Activity</i> 431, 501 | SE: 5 #11-#12, 744-745, 746-747, 748-749 |
| 3C. Recognize and identify symmetry and transformations on figures. | SE: 197-200, 202 #37-38, 203 #44-46, 247, 525-526, 529 #44-46 | SE: 466, 467 #5-#11, 468 #27-#32, 642 #46-#48 |
| 3D. Use field properties to justify mathematical procedures. | SE: 26-29, 30 #15-28, 32-33, 35 #32-43, 150 #2, 444 #2, 452-454, 479 #81-86, 481-483 <i>Algebra Activity</i> 480 | SE: 62-63, 64 #8-#9, 65 #29-#36, 193, 197 #33-#35, 201-203, 208-209 <i>Construction</i> 200, 207 <i>Geometry Activity</i> 214-215 |
| Key Idea 4 Modeling/Multiple Representation Students use mathematical modeling/multiple representation to provide a means of presenting, interpreting, communicating, and connecting mathematical information and relationships. | | |
| 4A. Represent problem situations symbolically by using algebraic expressions, sequences, tree diagrams, geometric figures, and graphs. | SE: 89 #2, 120-123, 125 #45-47, 142-144, 157 #5, 320 #6, 556 #3, 567-570, 616-618, 754 #1 | SE: 149 #46-#49, 156 #40, 284 #4, 300 #3, 304 #41-#42, 314 #43, 369 #49, 372 #3, 373 #6, 379 #3, 504 #55-#57 |
| 4B. Justify the procedures for basic geometric constructions. | SE: 272-274, 280-283, 286-288, 292-295, 623-627, 810-817 <i>Algebra Activity</i> 622 | SE: <i>Construction</i> 15, 24, 33, 44, 236, 237, 314, 433, 435, 444 |
| 4C. Use transformations in the coordinate plane. | SE: 197-200, 201 #9-10, 202 #27-29, 211 #57-59, 247 <i>Graphing Calculator Investigation</i> 556 | SE: 470 ex 1, 472 #6-#7, 473 #15-#20, 475 #38, 481 #35, 492 ex 3, 495 #26-#27, 496 #48-#51 TWE: DI 471 |
| 4D. Develop and apply the concept of basic loci to compound loci. | See Glencoe's <i>Geometry</i> © 2005. | SE: 11 #58-#59, 658 #30-#31, 719 #40-#41 <i>Geometry Activity</i> 677 <i>Study Tip</i> 310, 577 |

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| | <i>Algebra 1</i> | <i>Geometry</i> |
| 4E. Model real-world problems with systems of equations and inequalities. | SE: 369-371, 373 #51-54, 386 #37-39, 390, 394-396, 397 #29-30, 398 #33-34 <i>Spreadsheet Investigation</i> 368 | SE: 742-743 |
| Key Idea 5 Measurement Students use measurement in both metric and English measure to provide a major link between the abstractions of mathematics and the real world in order to describe and compare objects and data. | | |
| 5A. Apply formulas to find measures such as length, area, volume, weight, time, and angle in real-world contexts. | SE: 124 #21, 167 #3, 330 #49, 336 #43-44, 513 #55-56, 514 #67, 529 #44-46, 611-612, 663 #38-39, 817 | SE: 689 ex 2, 691 #6, 693 #25-#28, 694 #33, 697 ex 1, 699 #7, 700 #25-#27, 705 #19, 706 #32, 732-733 |
| 5B. Choose and apply appropriate units and tools in measurement situations. | See Glencoe's <i>Geometry</i> © 2005. | SE: 13-19 TWE: A 19 |
| 5C. Use dimensional analysis techniques. | SE: 167 #4, 656 #3, 658 #28-31, 661 #5, 663 #38-39 TWE: BPK 655 | SE: 730-731 |
| 5D. Use statistical methods including the measures of central tendency to describe and compare data. | SE: 50-52, 87 #74-77, 88-91, 92 #19, 93 #32-34, 731-733, 737-739, 742 #43, 818-819 | SE: 183 #45, 245 #33-#36, 254 #60 |
| 5E. Use trigonometry as a method to measure indirectly. | SE: 623-627, 629 #61-62, 630 #63-64, 636 <i>Algebra Activity</i> 622 | SE: 21-22, 300 #3, 354 #11, 369 #59-#60, 372 #3, 379 #3, 381 #15, 382 #38-#39 <i>Geometry Activity</i> 28, 349 |
| 5F. Apply proportions to scale drawings and direct variation. | SE: 157 #5, 159 #33, 266 #5, 269 #52-53, 642-644 TWE: BPK 264 | SE: 290 ex 2, 292 ex 5, 293 #10, 294 #16, 296 #51-#52 |
| 5G. Relate absolute value, distance between two points, and the slope of a line to the coordinate plane. | SE: 256-259, 260 #15-34, 262 #61, 264-267, 268 #15-20, 270 #63-65, 611-612, 614 #40-42 | SE: 21 ex 2, 25 #23-#26, 26 #49, 139-144, 150 #56-#58, 154 ex 4, 157 #51-#56 TWE: H 21 |
| 5H. Explain the role of error in measurement and its consequence on subsequent calculations. | SE: 345, 349 #13, 350 #50 <i>Algebra Activity</i> 347 | SE: 19 #52-#55 |
| 5I. Use geometric relationships in relevant measurement problems involving geometric concepts. | SE: 616-618, 620 #31-32, 623-627, 629 #61-62, 630 #63-64, 636 | SE: 529-535, 543 #54-#56, 551 #51-#52, 582 #17-#28 TWE: A 535 DI 531, 532 |

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| | <i>Algebra 1</i> | <i>Geometry</i> |
| Key Idea 6 Uncertainty Students use ideas of uncertainty to illustrate that mathematics involves more than exactness when dealing with everyday situations. | | |
| 6A. Judge the reasonableness of results obtained from applications in algebra, geometry, trigonometry, probability, and statistics. | SE: 17 #4 <i>Algebra Activity 49</i> TWE: DI 90 TNT 106 | SE: 111 #1, 128 #2, 142 #2, 188 #2, 203 #2, 263 #2, 284 #3, 292 #1, 301 #3, 353 #1 |
| 6B. Use experimental and theoretical probability to represent and solve problems involving uncertainty. | SE: 100 #59, 782-784, 785 #9-12, 787 #36-38, 792 | SE: <i>Geometry Activity 20</i> |
| 6C. Use the concept of random variable in computing probabilities. | SE: 777-778, 779 #14-17, 780 #18-20, 787 #36-38, 788 #42-44 | See Glencoe's <i>Algebra 1</i> © 2005 and Glencoe's <i>Algebra 2</i> © 2004 page 646. |
| 6D. Determine probabilities, using permutations and combinations. | SE: 760-763, 764 #10-12, 765 #36-39, 766 #47-49 <i>Reading Mathematics 768</i> | SE: 265 #48-#49, 278 #4 |
| Key Idea 7 Patterns/Functions Students use patterns and functions to develop mathematical power, appreciate the true beauty of mathematics, and construct generalizations that describe patterns simply and efficiently. | | |
| 7A. Represent and analyze functions, using verbal descriptions, tables, equations, and graphs. | SE: 218-220, 226-229, 524-527, 533-535, 539-541, 546-549, 554-557 <i>Algebra Activity 569</i> <i>Graphing Calculator Investigation 545</i> <i>Reading Mathematics 566</i> | SE: 145-147, 149 #52, 575-577, 736-751 <i>Geometry Activity 677</i> |
| 7B. Apply linear and quadratic functions in the solution of problems. | SE: 128-131, 135-137, 142-144, 166-167, 212-214, 218-220, 226-228, 524-527, 529 #44-46, 533-535 | SE: 149 #46-#49, 156 #40, 284 #4, 300 #3, 304 #41-#42, 314 #43, 369 #49, 372 #3, 373 #6, 379 #3, 504 #55-#57 |
| 7C. Translate among the verbal descriptions, tables, equations, and graphic forms of functions. | SE: 218-220, 233-235, 256-259, 264-266, 272-274, 280-283, 524-527, 533-535 <i>Algebra Activity 49</i> <i>Graphing Calculator Investigation 224-225</i> | SE: 145-147, 149 #52, 575-577, 736-751 <i>Geometry Activity 677</i> |

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| | <i>Algebra 1</i> | <i>Geometry</i> |
| 7D. Model real-world situations with the appropriate function. | SE: 218-220, 222 #54-56, 230 #45-48, 237 #47-49, 256-259, 260 #35-36, 261 #57, 524-527, 529 #44-46, 559 #36 | SE: 149 #46-#49, 156 #40, 284 #4, 300 #3, 304 #41-#42, 314 #43, 369 #49, 372 #3, 373 #6, 379 #3, 504 #55-#57 |
| 7E. Apply axiomatic structure to algebra. | SE: 21-23, 26-29, 32-34, 60 | SE: 94-100 TWE: A 100 |
| Math B | | |
| Key Idea 1 | | |
| Mathematical Reasoning | | |
| Students use mathematical reasoning to analyze mathematical situations, make conjectures, gather evidence, and construct an argument. | | |
| 1A. Construct proofs based on deductive reasoning. | SE: 38-39, 40 #10-12, 41 #30-35, 42 #52 <i>Reading Mathematics</i> 239 | SE: 82-87, 89-93 |
| 1B. Construct indirect proofs. | See Glencoe's <i>Geometry</i> © 2005. | SE: 255-260, 266 #54, 273 #37-#38, 275 #18-#20, 277 #10-#11 |
| Key Idea 2 | | |
| Number and Numeration | | |
| Students use number sense and numeration to develop an understanding of the multiple uses of numbers in the real world, the use of numbers to communicate mathematically, and the use of numbers in the development of mathematical ideas. | | |
| 2A. Understand and use rational and irrational numbers. | SE: 68-70, 72 #62, 73-75, 76 #1, 78 #65, 79-81, 82 #55, 84-85, 86 #3, 104-106 | SE: 122 #1 |
| 2B. Recognize the order of the real numbers. | SE: 68-69, 71 #42, 72 #58, 88-89, 92 #14, 104-106, 107 #17-18, 108 #64-69, 233-235, 236 #6-7 | SE: 122 #1 |
| 2C. Apply the properties of the real numbers to various subsets of numbers. | SE: 68-69, 72 #58, 79-80, 84-85, 87 #58, 104-106, 107 #8-11 | SE: 94-95, 247, 734-735 |
| 2D. Recognize the hierarchy of the complex number system. | See Glencoe's <i>Algebra 2</i> © 2004 pages 270-275. | See Glencoe's <i>Algebra 2</i> © 2004 pages 270-275. |
| 2E. Model the structure of the complex number system. | See Glencoe's <i>Algebra 2</i> © 2004 pages 270-275. | See Glencoe's <i>Algebra 2</i> © 2004 pages 270-275. |
| Key Idea 3 | | |
| Operations | | |
| Students use mathematical operations and relationships among them to understand mathematics. | | |
| 3A. Use addition, subtraction, multiplication, division, and exponentiation with real numbers and algebraic expressions. | SE: 73-75, 77 #39-56, 78 #67-69, 79-81, 82 #42-49, 84-85, 87 #47-54, 103-106, 410-412, 417-420 | SE: 5 #9-#12, 58 #3, 59 #10, 737-740 |

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| | <i>Algebra 1</i> | <i>Geometry</i> |
| 3B. Develop an understanding of and use the composition of functions and transformations. | SE: 43-45, 197-200, 201 #25-26, 202 #27-29, 226-228, 230 #49-51, 249, 524-527, 554-557, 715-717 | SE: 471 |
| 3C. Use transformations on figures and functions in the coordinate plane. | SE: 197-200, 201 #9-10, 202 #27-29, 211 #57-59, 247 <i>Graphing Calculator Investigation</i> 556 | SE: 194, 463-466, 467 #8-#11, 468 #38-#39, 470-471, 473 #15-#20, 490-493 <i>Geometry Activity</i> 462 <i>Spreadsheet Activity</i> 695 |
| 3D. Use rational exponents on real numbers and all operations on complex numbers. | SE: 7 #2-4, 410-412, 417-420, 425-427 See Glencoe's <i>Algebra 2</i> © 2004 for a discussion on complex numbers. | See Glencoe's <i>Algebra 1</i> © 2005 and Glencoe's <i>Algebra 2</i> © 2004 pages 257-262. |
| 3E. Combine functions, using the basic operations and the composition of two functions. | See Glencoe's <i>Algebra 2</i> © 2004 pages 384-385. | See Glencoe's <i>Algebra 2</i> © 2004 pages 384-385. |
| Key Idea 4 Modeling/Multiple Representation Students use mathematical modeling/multiple representation to provide a means of presenting, interpreting, communicating, and connecting mathematical information and relationships. | | |
| 4A. Represent problem situations symbolically by using algebraic expressions, sequences, tree diagrams, geometric figures, and graphs. | SE: 89 #2, 120-123, 125 #45-47, 142-144, 157 #5, 320 #6, 556 #3, 567-570, 616-618, 754 #1 | SE: 145-147, 149 #52, 575-577, 736-751 <i>Geometry Activity</i> 677 |
| 4B. Manipulate symbolic representations to explore concepts at an abstract level. | SE: 6-7, 11-13, 37-39, 233-235, 240-241 <i>Algebra Activity</i> 49, 759 <i>Reading Mathematics</i> 10, 507, 768 | SE: 145-147, 149 #52, 575-577, 736-751 <i>Geometry Activity</i> 677 |
| 4C. Choose appropriate representations to facilitate the solving of a problem. | SE: 6-7, 37-38, 43-45, 52, 623-627 <i>Algebra Activity</i> 102, 141 <i>Reading Mathematics</i> 10, 507, 768 | SE: 50 #36, 137 #42, 147 ex 5, 156 #40-#41, 782-794 |
| 4D. Develop meaning for basic conic sections. | SE: 524-527, 529 #38, 574-575, 815-816 <i>Graphing Calculator Investigation</i> 545 Circles and parabolas are examples of conic sections. The origin of conic sections may be found in advanced math texts. | See Glencoe's <i>Algebra 1</i> © 2005 and <i>Algebra 2</i> © 2004 pages 449-452. |

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| | <i>Algebra 1</i> | <i>Geometry</i> |
| 4E. Model real-world problems with systems of equations and inequalities. | SE: 369-371, 372 #14, 373 #48-50, 376-379, 380 #34-35, 385 #34, 394-396, 397 #29-30 <i>Graphing Calculator Investigation</i> 375 <i>Spreadsheet Investigation</i> 368 | SE: 742-743 |
| 4F. Model vector quantities both algebraically and geometrically. | See Glencoe's <i>Geometry</i> © 2005. | SE: 498-505, 511 #51-#52, 516 #35-#41, 517 #22-#23 TWE: A 505 DI 499 GA 501 |
| 4G. Represent graphically the sum and difference of two complex numbers. | See Glencoe's <i>Algebra 2</i> © 2004 pages 270-275, 329. | See Glencoe's <i>Algebra 2</i> © 2004 pages 270-275, 329. |
| 4H. Model quadratic inequalities both algebraically and graphically. | See Glencoe's <i>Algebra 2</i> © 2004 pages 329-335, 384. | See Glencoe's <i>Algebra 2</i> © 2004 pages 329-335, 384. |
| 4I. Model the composition of transformations. | SE: 292, 369-371 <i>Graphing Calculator Investigation</i> 278-279, 375, 531-532, 556 | SE: 471 |
| 4J. Determine the effects of changing parameters of the graphs of functions. | SE: 432-433, 435 #55-56, 439-440, 442 #36-40, 447 #51, 554-557, 559 #36, 561-563, 629 #61-62, 630 #63-64 | SE: 139-144, 145-150 |
| 4K. Use polynomial, trigonometric, and exponential functions to model real-world relationships. | SE: 524-527, 529 #38, 574-576, 815-816 <i>Graphing Calculator Investigation</i> 545 Circles and parabolas are examples of conic sections. The origin of conic sections may be found in advanced math texts. | SE: 149 #46-#49, 156 #40, 284 #4, 300 #3, 304 #41-#42, 314 #43, 369 #49, 372 #3, 373 #6, 379 #3, 504 #55-#57 |
| 4L. Use algebraic relationships to analyze the conic sections. | See Glencoe's <i>Algebra 2</i> © 2004 pages 270-275, 762. | See Glencoe's <i>Algebra 2</i> © 2004 pages 270-275, 762. |
| 4M. Use circular functions to study and model periodic real-world phenomena. | SE: <i>Graphing Calculator Investigation</i> 204, 278-279, 306-307, 358, 375, 531-532, 545, 553, 604, 654, 729-730 | See Glencoe's <i>Algebra 1</i> © 2005 or <i>Algebra 2</i> © 2004 pages 739-745. |
| 4N. Use graphing utilities to create and explore geometric and algebraic models. | See Glencoe's <i>Geometry</i> © 2005. | SE: <i>Geometry Software Investigation</i> 51-52, 101, 343, 384, 448, 477, 552 |

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| | <i>Algebra 1</i> | <i>Geometry</i> |
| Key Idea 5 Measurement Students use measurement in both metric and English measure to provide a major link between the abstractions of mathematics and the real world in order to describe and compare objects and data. | | |
| 5A. Use trigonometry as a method to measure indirectly. | SE: 623-627, 629 #61-62, 630 #63-64, 636 <i>Algebra Activity 622</i> | SE: 21-22, 300 #3, 354 #11, 369 #59-#60, 372 #3, 379 #3, 381 #15, 382 #38-#39 <i>Geometry Activity 28, 349</i> |
| 5B. Understand error in measurement and its consequence on subsequent calculations. | SE: <i>Algebra Activity 347</i> Measurement error also is discussed in Glencoe's <i>Physics: Principles and Problems</i> © 2002 pages 24-29. | SE: 19 #52-#55 Measurement error also is discussed in Glencoe's <i>Physics: Principles and Problems</i> © 2002 pages 24-29. |
| 5C. Derive and apply formulas relating angle measure and arc degree measure in a circle. | See Glencoe's <i>Geometry</i> © 2005. | SE: 529-535, 543 #54-#56, 551 #51-#52, 582 #17-#28 TWE: A 535 DI 531, 532 |
| 5D. Prove and apply theorems related to lengths of segments in a circle. | See Glencoe's <i>Geometry</i> © 2005. | SE: 536-543, 551 #48-#50, 558 #38-#40, 561-568, 569-574 TWE: A 543, 568, 574 DI 537 GA 570 |
| 5E. Define the trigonometric functions in terms of the unit circle. | See Glencoe's <i>Algebra 2</i> © 2004 pages 739-740. | See Glencoe's <i>Algebra 2</i> © 2004 pages 739-740. |
| 5F. Relate trigonometric relationships to the area of a triangle and to general solutions of triangles. | See Glencoe's <i>Geometry</i> © 2005. | SE: 377-383, 385-390 |
| 5G. Apply the normal curve and its properties to familiar contexts. | See Glencoe's <i>Algebra 2</i> © 2004 pages 671-675. | See Glencoe's <i>Algebra 2</i> © 2004 pages 671-675. |
| 5H. Derive formulas to find measures such as length, area, and volume in real-world context. | SE: 8 #20, 124 #26, 125 #41-42, 126 #52, 167 #3, 442 #36-40, 813-817 <i>Algebra Activity 122, 416</i> | SE: 689 ex 2, 691 #6, 693 #25-#28, 694 #33, 697 ex 1, 699 #7, 700 #25-#27, 705 #19, 706 #32, 732-733 |
| 5I. Design a statistical experiment to study a problem and communicate the outcome, including dispersion. | SE: 708-710, 711 #17, 731-733, 739 #2 <i>Algebra Activity 299</i> | See Glencoe's <i>Algebra 1</i> © 2005 and <i>Algebra 2</i> © 2004 TWE pages <i>Daily Intervention 672 and 677</i> . |

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| | <i>Algebra 1</i> | <i>Geometry</i> |
| 5J. Use statistical methods, including scatter plots and lines of best fit, to make predictions. | SE: 50-52, 88-91, 298-301, 303 #16-17, 304 #29-33, 312 <i>Graphing Calculator Investigation</i> 306-307, 729-730 <i>Spreadsheet Investigation</i> 56 | See Glencoe's <i>Algebra 1</i> © 2005 and Glencoe's <i>Algebra 2</i> © 2004 pages 81-86. |
| Key Idea 6 Uncertainty Students use ideas of uncertainty to illustrate that mathematics involves more than exactness when dealing with everyday situations. | | |
| 6A. Judge the reasonableness of results obtained from applications in algebra, geometry, trigonometry, probability, and statistics. | SE: 17 #4 <i>Algebra Activity</i> 49 TWE: DI 90 TNT 106 | SE: 111 #1, 128 #2, 142 #2, 188 #2, 203 #2, 263 #2, 284 #3, 292 #1, 301 #3, 353 #1 |
| 6B. Judge the reasonableness of a graph produced by a calculator or computer. | SE: 50-52, 54 #16, 55 #17, 292 <i>Graphing Calculator Investigation</i> 306-307, 553 <i>Spreadsheet Investigation</i> 56 | See Glencoe's <i>Algebra 1</i> © 2005. |
| 6C. Interpret probabilities in real-world situations. | SE: 96-98, 100 #50, 769-772, 773 #13-15, 774 #28-31, 775 #48-51, 777-778, 779 #14-17, 784 #4 <i>Algebra Activity</i> 102 | SE: 622-624, 625 #4-#5, 626 #13-#15, 627 #26-#30, 631 #13-#15 |
| 6D. Use a Bernoulli experiment to determine probabilities for experiments with exactly two outcomes. | SE: 784 #3, 785 #9-12, 787 #32 | See Glencoe's <i>Algebra 1</i> © 2005. |
| 6E. Use curve fitting to fit data. | SE: 300-301, 302 #6-9, 303 #18-23, 304 #29-30, 305 #40-44 <i>Graphing Calculator Investigation</i> 306-307 | See Glencoe's <i>Algebra 1</i> © 2005. |
| 6F. Create and interpret applications of discrete and continuous probability distributions. | SE: 777-778, 779 #14-17, 780 #25, 791 See Glencoe's <i>Algebra 2</i> © 2004 page 671 for continuous probability distributions. | SE: 265 #48-#49, 648 #46 |
| 6G. Make predictions based on interpolations and extrapolations from data. | SE: 283 #4, 284 #34-37, 285 #47 <i>Algebra Activity</i> 49 | SE: 18 #43-#45, 19 #52-#55, 63 #3, 143 #44-#46, 531 #3 |

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| | <i>Algebra 1</i> | <i>Geometry</i> |
| Key Idea 7 Patterns/Functions Students use patterns and functions to develop mathematical power, appreciate the true beauty of mathematics, and construct generalizations that describe patterns simply and efficiently. | | |
| 7A. Use function vocabulary and notation. | SE: 43-45, 226-227, 228 #5 <i>Algebra Activity 49</i> <i>Reading Mathematics 263</i> | See Glencoe's <i>Algebra 1</i> © 2005. |
| 7B. Represent and analyze functions, using verbal descriptions, tables, equations, and graphs. | SE: 43-45, 226-228, 524-527, 533-535, 539-541, 546-549 <i>Algebra Activity 49</i> <i>Graphing Calculator Investigation 531-532, 545</i> <i>Reading Mathematics 263</i> | SE: 145-147, 149 #52, 575-577, 736-751 <i>Geometry Activity 677</i> |
| 7C. Translate among the verbal descriptions, tables, equations, and graphic forms of functions. | SE: 218-220, 233-235, 256-259, 264-266, 272-274, 292-295, 524-527 <i>Algebra Activity 49</i> <i>Graphing Calculator Investigation 224-225</i> <i>Reading Mathematics 263</i> | SE: 145-147, 149 #52, 575-577, 736-751 <i>Geometry Activity 677</i> |
| 7D. Analyze the effect of parametric changes on the graphs of functions. | SE: 292, 369-371 <i>Graphing Calculator Investigation 278-279, 375, 531-532, 556</i> | SE: 139-144, 145-150 |
| 7E. Apply linear, exponential, and quadratic functions in the solution of problems. | SE: 128-131, 135-137, 142-144, 166-167, 212-214, 218-220, 226-228, 524-527, 533-535, 554-557 | SE: 149 #46-#49, 156 #40, 284 #4, 300 #3, 304 #41-#42, 314 #43, 369 #49, 372 #3, 373 #6, 379 #3, 504 #55-#57 |
| 7F. Apply and interpret transformations to functions. | SE: 292, 559 #42-44 <i>Graphing Calculator Investigation 278-279, 531-532, 556</i> | SE: 194, 463-466, 467 #8-#11, 468 #38-#39, 470-471, 473 #15-#20, 490-493 <i>Geometry Activity 462</i> <i>Geometry Software Investigation 477</i> <i>Spreadsheet Investigation 695</i> |
| 7G. Model real-world situations with the appropriate function. | SE: 218-220, 222 #54-56, 230 #45-48, 237 #47-49, 256-259, 260 #35-36, 261 #57, 524-527, 529 #44-46, 559 #36 | SE: 149 #46-#49, 156 #40, 284 #4, 300 #3, 304 #41-#42, 314 #43, 369 #49, 372 #3, 373 #6, 379 #3, 504 #55-#57 |
| 7H. Apply axiomatic structure to algebra and geometry. | SE: 21-23, 26-29, 32-34, 60 | SE: 94-100 TWE: A 100 |

| OBJECTIVES | PAGE REFERENCES | |
|--|--|--|
| | <i>Algebra 1</i> | <i>Geometry</i> |
| 7I. Solve equations with complex roots, using a variety of algebraic and graphical methods with appropriate tools. | See Glencoe's <i>Algebra 2</i> © 2004 page 315. | See Glencoe's <i>Algebra 2</i> © 2004 page 315. |
| 7J. Evaluate and form the composition of functions. | See Glencoe's <i>Algebra 2</i> © 2004 pages 384-385. | See Glencoe's <i>Algebra 2</i> © 2004 pages 384-385. |
| 7K. Solve equations, using fractions, absolute values, and radicals. | SE: 16-18, 128-131, 217 #52-55, 222 #49-51, 546-549, 690-693 | SE: 145-147, 149 #46-#49, 737-743 |
| 7L. Use basic transformations to demonstrate similarity and congruence of figures. | SE: 197-200, 201 #11-16, 202 #27-29, 203 #42, 211 #57-59, 415 #71-73 | SE: 194, 491 |
| 7M. Identify and differentiate between direct and indirect isometries. | SE: 197-200, 201 #11-16, 202 #27-29, 203 #44-46, 247 TWE: OEA 211 | SE: 462 #11, 481 #43-#46 |
| 7N. Analyze inverse functions, using transformations. | SE: 197-200, 201 #15, 202 #32, 203 #44-46, 247, 415 #73 TWE: OEA 211 | See Glencoe's <i>Algebra 1</i> © 2005 and <i>Algebra 2</i> © 2004 pages 390-394. |
| 7O. Apply the ideas of symmetries in sketching and analyzing graphs of functions. | SE: 525-527, 528 #6-8, 529 #37, 530 #50, 538 #53-55 | See Glencoe's <i>Algebra 1</i> © 2005 and <i>Algebra 2</i> © 2004 pages 287-288. |
| 7P. Use the normal curve to answer questions about data. | See Glencoe's <i>Algebra 2</i> © 2004 pages 671-675. | See Glencoe's <i>Algebra 2</i> © 2004 pages 671-675. |
| 7Q. Develop methods to solve trigonometric equations and verify trigonometric functions. | SE: 623-627, 628 #25-33, 629 #61-62, 630 #66, 636 <i>Algebra Activity 622</i> | SE: <i>Geometry Activity 391</i> |

Codes Used for TWE Pages

Algebra 1

BPK Building on Prior Knowledge
DI Differentiated Instruction
OEA Open-Ended Example
TNT Tips for New Teachers

Geometry

A Assess
DI Daily Intervention
GA Geometry Activity
H How