



MathMatters 1

An Integrated Program

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STANDARDS	PAGE REFERENCES
Algebra I	
Number and Operations	
1. Understand numbers, ways of representing numbers, relationships among numbers and number systems	
A Read, write and compare numbers	
compare and order rational and irrational numbers, including finding their approximate locations on a number line	Student Edition: 101 #4, 103 #27-#30, 112 #60-#65, 206 #13-#20, 240 #1-#4, 536 #7-#12 Annotated Teacher's Edition: AA 149; CE 103, 207; GS 104, 240; TT 207
B Represent and use rational numbers	
use real numbers and various models, drawing, etc. to solve problems.	Student Edition: 104-107, 108-111, 112 #12-#66, 113 #67-#84, 114-117, 118-121 Annotated Teacher's Edition: AA 115; CE 105, 109, 115; DI 105; ETL 109, 112, 119; GS 108, 114, 118; QA 106; TT 106, 108

STANDARDS	PAGE REFERENCES
C Compose and decompose numbers	
<p>*use a variety of representations to demonstrate an understanding of very large and very small numbers</p>	<p>Student Edition: 133 ex 3, 134 #10-#12, 135 #58, 140 #7-#32, 141 #99-#112, 148 #54-#55, 149 #38-#39, 150 #11, 151 #20</p> <p>Annotated Teacher's Edition: CE 133, 140; ETL 133; QA 134</p>
D Classify and describe numeric relationships	
2. Understand meanings of operations and how they relate to one another	
A Represent operations	
B Describe effects of operations	
<p>*describe the effects of operations, such as multiplication, division, and computing powers and roots on the magnitude of quantities</p>	<p>Student Edition: 108-111, 112 #36-#65, 132-135, 136-139, 140 #33-#72</p> <p>Annotated Teacher's Edition: CE 137; DI 136; ETL 109, 137; GS 142; QA 110, 138, 144; TT 108, 134</p>
C Apply properties of operations	
D Apply operations on real and complex numbers	
<p>*apply operations to real numbers, using mental computation or paper-and-pencil calculations for simple cases and technology for more complicated cases</p>	<p>Student Edition: 104-107, 108-111, 112 #1-#24, 113 #67-#84, 114-117, 122 #1-#27, 123 #60-#77</p> <p>Annotated Teacher's Edition: AA 115; CE 105, 109, 112, 115; DI 105; ETL 112; GS 108; QA 106, 110; TT 106</p>
3. Compute fluently and make reasonable estimates	
A Describe or represent mental strategies	
B Develop and demonstrate fluency	
C Compute problems	
D Estimate and justify solutions	
<p>*judge the reasonableness of numerical computations and their results</p>	<p>Student Edition: 502-503, 504 #8-#12, 505 #18, 512 #28-#30, 515 #22</p> <p>Annotated Teacher's Edition: CE 503, 504; ETL 503; GS 502; QA 503</p>

STANDARDS	PAGE REFERENCES
E Use proportional reasoning	
*solve problems involving proportions	<p>Student Edition: 84-87, 88 #34-#45, 89 #91-#96, 96 #52-#55, 97 #30-#33, 151 #16, 260-263, 269 #55-#66, 296 #11-#16, 299 #1-#4</p> <p>Annotated Teacher's Edition: AA 85; CE 85, 88, 261, 268; DI 84, 261; QA 86, 262</p>
Algebraic Relationships	
1. Understand patterns, relations and functions	
A Recognize and extend patterns	
B Create and analyze patterns	
generalize patterns using <u>explicitly</u> or <u>recursively</u> defined functions	<p>Student Edition: 128-129, 130 #36-#44, 131 #61-#62, 132 #1-#4, 141 #93-#94, 147 #49-#51</p> <p>Annotated Teacher's Edition: CE 129; ETL 129; GS 128; QA 129; TT 128, 131</p>
C Classify objects and representations	
compare and contrast various forms of <u>representations</u> of patterns	<p>Student Edition: 128-129, 130 #36-#44, 131 #61-#62, 132 #1-#4, 141 #93-#94, 147 #49-#51</p> <p>Annotated Teacher's Edition: CE 129; ETL 129; GS 128; QA 129; TT 128, 131</p>
D Identify and compare functions	
understand and compare the properties of <u>linear</u> and <u>nonlinear functions</u>	<p>Student Edition: 318-321, 322 #28-#51, 323 #63-#68, 333 #46-#48, 338-341, 343 #24-#28, 347 #18</p> <p>Annotated Teacher's Edition: CE 339; ETL 341</p>
E Describe the effects of parameter changes	
describe the effects of parameter changes on <u>linear</u> , <u>exponential growth/decay</u> and <u>quadratic functions</u> including intercepts	<p>Student Edition: 331 #33-#35, 343 #24-#28</p> <p>Annotated Teacher's Edition: ETL 341</p>

STANDARDS	PAGE REFERENCES
2. Represent and analyze mathematical situations and structures using algebraic symbols	
A Represent mathematical situations	
use <u>symbolic algebra</u> to represent and solve problems that involve linear and quadratic relationships including equations and inequalities	<p>Student Edition: 212-215, 216 #37-#63, 218-221, 222-225, 251 #29-#37, 253 #4-#15, 338-341</p> <p>Annotated Teacher's Edition: CE 213, 216, 219, 223; DI 218, 219; ETL 213; GS 212, 218, 219, 223; QA 214, 220, 224; TT 222, 224</p>
B Describe and use mathematical manipulation	
describe and use algebraic manipulations, including factoring and rules of integer exponents and apply <u>properties of exponents</u> (including order of operations) to simplify expressions	<p>Student Edition: 136-139, 140 #33-#72, 148 #56-#63, 149 #40-#43, 414-417, 422 #13-#27, 423 #62-#67</p> <p>Annotated Teacher's Edition: AA 417; CE 137, 140, 415; DI 136, 415; ETL 137, 416; GS 136, 142; QA 138, 416; TT 414</p>
C Utilize equivalent forms	
use and solve equivalent forms of equations (linear, absolute value, and quadratic)	<p>Student Edition: 212-215, 216 #37-#63, 218-221, 222-225, 246-249, 252 #88-#90</p> <p>Annotated Teacher's Edition: CE 213, 216, 219, 223; DI 218, 219; ETL 213; GS 212, 218, 222; QA 214, 220, 224; TT 222, 224</p>
D Utilize systems	
use and solve systems of linear equations or inequalities with 2 variables	<p>See Glencoe's <i>MathMatters 2: An Integrated Program</i> © 2009.</p> <p>Student Edition: 338-341, 342-343, 344-347, 348-351, 352-353, 354-357, 360-361, 362-365, 366-368, 369</p> <p><i>Check Understanding</i> 348, 349</p>
3. Use mathematical models to represent and understand quantitative relationships	
A Use mathematical models	
identify quantitative relationships and determine the type(s) of functions that might model the situation to solve the problem	<p>Student Edition: 321 #33-#34, 331 #26-#30, 333 #1-#6, 340 #12, 347 #21</p>

STANDARDS	PAGE REFERENCES
4. Analyze change in various contexts	
A Analyze change	
analyze linear and quadratic functions by investigating rates of change, intercepts and zeros	Student Edition: 319 ex 3, 320 #25-#30, 321 #35, 322 #40-#51, 323 #14-#16, 324-327, 328 ex 1, 330 #4-#6, 331 #26-#27, 333 #46-#48, 343 #25, 344 #32 Annotated Teacher's Edition: AA 325; CE 319, 322, 325, 329, 332; ETL 327, 329
Geometric and Spatial Relationships	
1. Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships	
A Describe and use geometric relationships	
B Apply geometric relationships	
*apply geometric properties such as similarity and angle relationship to solve multi-step problems in 2 dimensions	Student Edition: 62-65, 66-69, 70 #19-#34, 71 #45-#52, 95 #22-#35 Annotated Teacher's Edition: AA 62, 667; CE 63, 67; DI 68; ETL 63, 66; QA 64
C Compose and decompose shapes	
2. Specify locations and describe spatial relationships using coordinate geometry and other representational systems	
A Use coordinate systems	
3. Apply transformations and use symmetry to analyze mathematical situations	
A Use transformations on objects	
B Use transformations on functions	
C Use symmetry	
4. Use visualization, spatial reasoning and geometric modeling to solve problems	
A Recognize and draw three-dimensional representations	
B Draw and use visual models	
*draw or use <u>visual models</u> to represent and solve problems	Student Edition: 170-171, 366-367, 368 #1-#14, 369 #23-#24, 379 Annotated Teacher's Edition: CE 129; ETL 129; GS 128; QA 129; TT 128, 131

STANDARDS	PAGE REFERENCES
Measurement	
1. Understand measurable attributes of objects and the units, systems and processes of measurement	
A Determine unit of measurement	
B Identify equivalent measures	
C Tell and use units of time	
D Count and compute money	
2. Apply appropriate techniques, tools and formulas to determine measurements	
A Use standard or non-standard measurement	
B Use angle measurement	
C Apply geometric measurements	
D Analyze precision	
<p>*describe the effects of operations, such as multiplication, division and computing powers and roots on magnitudes of quantities and effects of computation on <u>precision</u> which include the judging of reasonable of numerical computations <u>and their results</u></p>	<p>Student Edition: 52 ex 1, 53 #1-#3, 54 #12-#17, 60 #1-#6, 94 #11, 97 #1</p> <p>Annotated Teacher's Edition: CE 53</p>
E Use relationships within a measurement system	
<p>*use <u>unit analysis</u> to solve problems</p>	<p>Student Edition: 50 #11-#14</p>
Data and Probability	
1. Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them	
A Formulate questions	
<p>formulate questions and collect data about a characteristic which include <u>sample spaces</u> and distributions</p>	<p>Student Edition: 6-9, 13 #51, 14 #1-#7, 15 #27-#31 <i>Chapter Investigation 3, 44</i></p> <p>Annotated Teacher's Edition: CE 7; CI 3; DI 6; ETL 7, 11; GS 6; QA 8</p>
B Classify and organize data	

STANDARDS	PAGE REFERENCES
C Represent and interpret data	
select and use appropriate graphical representation of data and given <u>one-variable quantitative data</u> , display the distribution and describe its shape	Student Edition: 16-19, 20-21, 22 #1-#9, 23 #28-#29, 24-27, 28-31, 34-37, 38-41 Annotated Teacher's Edition: CE 17, 21, 22, 23, 25, 29, 39; ETL 16, 24, 39; GS 16; QA 18, 26, 30
2. Select and use appropriate statistical methods to analyze data	
A Describe and analyze data	
apply statistical measures of center to solve problems	Student Edition: 10-13, 14 #8-#26, 19 #42, 23 #24-#27, 33 #22, 43 #16-#22, 45 #14-#15 Annotated Teacher's Edition: CE 11, 15; ETL 10, 11; QA 12
B Compare data representations	
C Represent data algebraically	
given a scatterplot, determine an equation for a <u>line of best fit</u>	Student Edition: 34-37, 44 #35-#40, 83 #44-#46, 340 ex 3 Annotated Teacher's Edition: CE 35; ETL 35; GS 34; QA 36; TT 34
3. Develop and evaluate inferences and predictions that are based on data	
A Develop and evaluate inferences	
make <u>conjectures</u> about possible relationships between 2 characteristics of a sample on the basis of scatter plots of the data	Student Edition: 34-37, 44 #35-#40, 83 #44-#46, 340 ex 3 Annotated Teacher's Edition: CE 35; ETL 35; GS 34; QA 36; TT 34
B Analyze basic statistical techniques	
4. Understand and apply basic concepts of probability	
A Apply basic concepts of probability	
B Use and describe compound events	

STANDARDS	PAGE REFERENCES
Geometry	
Number and Operations	
1. Understand numbers, ways of representing numbers, relationships among numbers and number systems	
A Read, write and compare numbers	
compare and order rational and irrational numbers, including finding their approximate locations on a number line	Student Edition: 101 #4, 103 #27-#30, 112 #60-#65, 206 #13-#20, 240 #1-#4, 536 #7-#12 Annotated Teacher's Edition: AA 149; CE 103, 207; GS 104, 240; TT 207
B Represent and use rational numbers	
use real numbers and various models, drawing, etc. to solve problems.	Student Edition: 104-107, 108-111, 112 #12-#66, 113 #67-#84, 114-117, 118-121 Annotated Teacher's Edition: AA 115; CE 105, 109, 115; DI 105; ETL 109, 112, 119; GS 108, 114, 118; QA 106; TT 106, 108
C Compose and decompose numbers	
D Classify and describe numeric relationships	
2. Understand meanings of operations and how they relate to one another	
A Represent operations	
B Describe effects of operations	
C Apply properties of operations	
D Apply operations on real and complex numbers	
*apply operations to real numbers, using mental computation or paper-and-pencil calculations for simple cases and technology for more complicated cases	Student Edition: 104-107, 108-111, 112 #1-#24, 113 #67-#84, 114-117, 122 #1-#27, 123 #60-#77 Annotated Teacher's Edition: AA 115; CE 105, 109, 112, 115; DI 105; ETL 112; GS 108; QA 106, 110; TT 106
3. Compute fluently and make reasonable estimates	
A Describe or represent mental strategies	
B Develop and demonstrate fluency	
C Compute problems	

STANDARDS	PAGE REFERENCES
D Estimate and justify solutions	
*judge the reasonableness of numerical computations and their results	Student Edition: 502-503, 504 #8-#12, 505 #18, 512 #28-#30, 515 #22 Annotated Teacher's Edition: CE 503, 504; ETL 503; GS 502; QA 503
E Use proportional reasoning	
*solve problems involving proportions	Student Edition: 84-87, 88 #34-#45, 89 #91-#96, 96 #52-#55, 97 #30-#33, 151 #16, 260-263, 269 #55-#66, 296 #11-#16, 299 #1-#4 Annotated Teacher's Edition: AA 85; CE 85, 88, 261, 268; DI 84, 261; QA 86, 262
Algebraic Relationships	
1. Understand patterns, relations and functions	
A Recognize and extend patterns	
B Create and analyze patterns	
generalize patterns using <u>explicitly</u> or <u>recursively</u> defined functions	Student Edition: 128-129, 130 #36-#44, 131 #61-#62, 132 #1-#4, 141 #93-#94, 147 #49-#51 Annotated Teacher's Edition: CE 129; ETL 129; GS 128; QA 129; TT 128, 131
C Classify objects and representations	
compare and contrast various forms of <u>representations</u> of patterns	Student Edition: 128-129, 130 #36-#44, 131 #61-#62, 132 #1-#4, 141 #93-#94, 147 #49-#51 Annotated Teacher's Edition: CE 129; ETL 129; GS 128; QA 129; TT 128, 131
D Identify and compare functions	
apply appropriate <u>properties of exponents</u> to simplify expressions and solve equations	Student Edition: 132-135, 136-139, 140 #33-#72, 141 #113-#136, 148 #56-#63, 149 #40-#43 Annotated Teacher's Edition: CE 133, 137, 140; DI 136, 141; ETL 137; GS 136, 142; QA 134, 138; TT 134
E Describe the effects of parameter changes	

STANDARDS	PAGE REFERENCES
2. Represent and analyze mathematical situations and structures using algebraic symbols	
A Represent mathematical situations	
B Describe and use mathematical manipulation	
C Utilize equivalent forms	
D Utilize systems	
3. Use mathematical models to represent and understand quantitative relationships	
A Use mathematical models	
identify quantitative relationships and determine the type(s) of functions that might model the situation to solve the problem	Student Edition: 321 #33-#34, 331 #26-#30, 333 #1-#6, 340 #12, 347 #21
4. Analyze change in various contexts	
A Analyze change	
analyze linear and quadratic functions by investigating rates of change and intercepts	Student Edition: 319 ex 3, 320 #25-#30, 321 #35, 322 #40-#51, 323 #14-#16, 324-327, 328 ex 1, 330 #4-#6, 331 #26-#27, 333 #46-#48, 343 #25, 344 #32 Annotated Teacher's Edition: AA 325; CE 319, 322, 325, 329, 332; ETL 327, 329
Geometric and Spatial Relationships	
1. Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships	
A Describe and use geometric relationships	
use inductive and deductive reasoning to establish the validity of geometric <u>conjectures</u> , prove theorems and critique arguments made by others	Student Edition: 482-485, 486 #7-#20, 487 #27-#28, 488-491, 496 #1-#13, 498-501, 504 #1-#7 Annotated Teacher's Edition: CE 483, 486, 489, 496, 499; ETL 484, 489, 499; GS 482, 488; QA 484, 488; TT 488, 496, 497
B Apply geometric relationships	
C Compose and decompose shapes	

STANDARDS	PAGE REFERENCES
2. Specify locations and describe spatial relationships using coordinate geometry and other representational systems	
A Use coordinate systems	
make conjectures and solve problems involving 2-dimensional objects represented with Cartesian coordinates	Student Edition: 308-311, 312 #11-#40, 313 #45-#51, 323 #55-#58, 333 #36-#38, 335 ex 2, 336 #25-#34, 337 #41-#424, 344 #35, 345 #24, 346 #11, 347 #19, 572 #10-#18 Annotated Teacher's Edition: CE 309, 312, 335; DI 308; ETL 309; QA 310
3. Apply transformations and use symmetry to analyze mathematical situations	
A Use transformations on objects	
use and apply constructions and the coordinate plane to represent translations, reflections, rotations and dilations of objects	Student Edition: 370-373, 374 ex 1, 375 ex 2, 376 #14-#15, 378 #9-#26, 379 #37-#38, 380 ex 1, 381 ex 2 Annotated Teacher's Edition: AA 374; CE 371, 375, 378, 381; QA 372, 376, 382; TT 370, 371, 375, 380, 381
B Use transformations on functions	
C Use symmetry	
identify types of symmetries of 2- and 3-dimensional figures	Student Edition: 375 ex 3, 376 #7-#9, 377 #22, 378 #27-#29, 386 #39, 387 #21 Annotated Teacher's Edition: CE 375
4. Use visualization, spatial reasoning and geometric modeling to solve problems	
A Recognize and draw three-dimensional representations	
draw and use vertex-edge graphs or networks to find optimal solutions and draw representations of 3-dimensional geometric objects from different perspectives	Annotated Teacher's Edition: AA 363
B Draw and use visual models	
*draw or use <u>visual models</u> to represent and solve problems	Student Edition: 170-171, 366-367, 368 #1-#14, 369 #23-#24, 379 Annotated Teacher's Edition: CE 129; ETL 129; GS 128; QA 129; TT 128, 131

STANDARDS	PAGE REFERENCES
Measurement	
1. Understand measurable attributes of objects and the units, systems and processes of measurement	
A Determine unit of measurement	
B Identify equivalent measures	
C Tell and use units of time	
D Count and compute money	
2. Apply appropriate techniques, tools and formulas to determine measurements	
A Use standard or non-standard measurement	
B Use angle measurement	
solve problems of angle measure, including those involving triangles or other polygons and of parallel lines cut by a transversal	Student Edition: 363 ex 2-ex 3, 364 #6-#8, 365 #27-#29, 368 #1-#9, 369 #22, 379 #35, 385 #28-#29, 387 #15-#16, 389 #19 Annotated Teacher's Edition: CE 363, 368; QA 364; TT 368
C Apply geometric measurements	
determine the surface area, and volume of geometric figures, including cones, spheres, and cylinders	Student Edition: 184-187, 188-191, 192 #7-#12, 193 #62, 194-197, 200 #39-#50, 201 #27-#28, 202 #9, 203 #23 Annotated Teacher's Edition: AA 185, 195; CE 185, 189, 192, 195; DI 188; ETL 184, 189; GS 188; QA 186, 190, 196
D Analyze precision	
E Use relationships within a measurement system	
*use <u>unit analysis</u> to solve problems	Student Edition: 50 #11-#14
Data and Probability	
1. Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them	
A Formulate questions	
formulate and collect data about a characteristic	Student Edition: 6-9, 13 #51, 14 #1-#7, 15 #27-#31 <i>Chapter Investigation 3, 44</i> Annotated Teacher's Edition: CE 7; CI 3; DI 6; ETL 7, 11; GS 6; QA 8

STANDARDS	PAGE REFERENCES
B Classify and organize data	
C Represent and interpret data	
select and use appropriate graphical representation of data and given <u>one-variable quantitative data</u> , display the distribution and describe its shape	Student Edition: 16-19, 20-21, 22 #1-#9, 23 #28-#29, 24-27, 28-31, 34-37, 38-41 Annotated Teacher's Edition: CE 17, 21, 22, 23, 25, 29, 39; ETL 16, 24, 39; GS 16; QA 18, 26, 30
2. Select and use appropriate statistical methods to analyze data	
A Describe and analyze data	
B Compare data representations	
C Represent data algebraically	
3. Develop and evaluate inferences and predictions that are based on data	
A Develop and evaluate inferences	
B Analyze basic statistical techniques	
4. Understand and apply basic concepts of probability	
A Apply basic concepts of probability	
B Use and describe compound events	
Algebra II	
Number and Operations	
1. Understand numbers, ways of representing numbers, relationships among numbers and number systems	
A Read, write and compare numbers	
compare and order rational and irrational numbers, including finding their approximate locations on a number line	Student Edition: 101 #4, 103 #27-#30, 112 #60-#65, 206 #13-#20, 240 #1-#4, 536 #7-#12 Annotated Teacher's Edition: AA 149; CE 103, 207; GS 104, 240; TT 207
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STANDARDS	PAGE REFERENCES
C Compose and decompose numbers	
*use a variety of representations to demonstrate an understanding of very large and very small numbers	Student Edition: 133 ex 3, 134 #10-#12, 135 #58, 140 #7-#32, 141 #99-#112, 148 #54-#55, 149 #38-#39, 150 #11, 151 #20 Annotated Teacher's Edition: CE 133, 140; ETL 133; QA 134
D Classify and describe numeric relationships	
2. Understand meanings of operations and how they relate to one another	
A Represent operations	
B Describe effects of operations	
C Apply properties of operations	
D Apply operations on real and complex numbers	
*apply operations to matrices and complex numbers, using mental computation or paper-and-pencil calculations for simple cases and technology for more complicated cases	See Glencoe's <i>MathMatters 2: An Integrated Program</i> © 2009. Student Edition: 38-41, 44, 45, 47, 99, 239 #11, 354-357, 358-359, 360-361, 368, 369
3. Compute fluently and make reasonable estimates	
A Describe or represent mental strategies	
B Develop and demonstrate fluency	
C Compute problems	
D Estimate and justify solutions	
*judge the reasonableness of numerical computations and their results	Student Edition: 502-503, 504 #8-#12, 505 #18, 512 #28-#30, 515 #22 Annotated Teacher's Edition: CE 503, 504; ETL 503; GS 502; QA 503
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generalize patterns using <u>explicitly</u> or <u>recursively</u> defined functions	Student Edition: 128-129, 130 #36-#44, 131 #61-#62, 132 #1-#4, 141 #93-#94, 147 #49-#51 Annotated Teacher's Edition: CE 129; ETL 129; GS 128; QA 129; TT 128, 131
C Classify objects and representations	
compare and contrast various forms of <u>representations</u> of patterns	Student Edition: 128-129, 130 #36-#44, 131 #61-#62, 132 #1-#4, 141 #93-#94, 147 #49-#51 Annotated Teacher's Edition: CE 129; ETL 129; GS 128; QA 129; TT 128, 131
D Identify and compare functions	
Compare the properties of linear, exponential, logarithmic and ration functions	Student Edition: 318-321, 322 #28-#51, 323 #63-#68, 333 #46-#48, 338-341, 343 #24-#28, 347 #18 Annotated Teacher's Edition: CE 339; ETL 341
E Describe the effects of parameter changes	
describe the effects of <u>parameter changes</u> on functions	Student Edition: 331 #33-#35, 343 #24-#28 Annotated Teacher's Edition: ETL 341
2. Represent and analyze mathematical situations and structures using algebraic symbols	
A Represent mathematical situations	
use <u>symbolic algebra</u> to represent and solve problems that involve exponential, quadratic and logarithmic relationships	Student Edition: 212-215, 216 #37-#63, 218-221, 222-225, 251 #29-#37, 253 #4-#15, 338-341 Annotated Teacher's Edition: CE 213, 216, 219, 223; DI 218, 219; ETL 213; GS 212, 218, 219, 223; QA 214, 220, 224; TT 222, 224

STANDARDS	PAGE REFERENCES
B Describe and use mathematical manipulation	
describe and use algebraic manipulations, <u>inverse</u> or <u>composition</u> of functions	See Glencoe's <i>Algebra 2</i> © 2008 Student Edition: 385-390, 392-397
C Utilize equivalent forms	
use and solve equivalent forms of equations and inequalities	Student Edition: 212-215, 216 #37-#63, 218-221, 222-225, 246-249, 252 #88-#90 Annotated Teacher's Edition: CE 213, 216, 219, 223; DI 218, 219; ETL 213; GS 212, 218, 222; QA 214, 220, 224; TT 222, 224
D Utilize systems	
use and solve systems of linear and quadratic equations or inequalities with 2 variables	See Glencoe's <i>MathMatters 2: An Integrated Program</i> © 2009. Student Edition: 338-341, 342-343, 344-347, 348-351, 352-353, 354-357, 360-361, 362-365, 366-368, 369 <i>Check Understanding</i> 348, 349
3. Use mathematical models to represent and understand quantitative relationships	
A Use mathematical models	
identify quantitative relationships and determine the type(s) of functions that might model the situation to solve the problem	Student Edition: 321 #33-#34, 331 #26-#30, 333 #1-#6, 340 #12, 347 #21
4. Analyze change in various contexts	
A Analyze change	
analyze exponential and logarithmic functions by investigating rates of change, intercepts and asymptotes	See Glencoe's <i>MathMatters 3: An Integrated Program</i> © 2009. Student Edition: 576, 600 <i>Example</i> 595 <i>Extended Practice Exercises</i> 603

STANDARDS	PAGE REFERENCES
Geometric and Spatial Relationships	
1. Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships	
A Describe and use geometric relationships	
use trigonometric relationships with right triangles to determine lengths and angle measures	See Glencoe's <i>MathMatters 2: An Integrated Program</i> © 2009. Student Edition: 488-491, 492-493, 494-497, 498-501, 502-503, 508-509, 511-512, 513 <i>Check Understanding</i> 494
B Apply geometric relationships	
C Compose and decompose shapes	
2. Specify locations and describe spatial relationships using coordinate geometry and other representational systems	
A Use coordinate systems	
3. Apply transformations and use symmetry to analyze mathematical situations	
A Use transformations on objects	
B Use transformations on functions	
translate, dilate and reflect <u>functions</u>	Student Edition: 370-373, 374 ex 1, 375 ex 2, 376 #14-#15, 378 #9-#26, 379 #37-#38, 380 ex 1, 381 ex 2 Annotated Teacher's Edition: AA 374; CE 371, 375, 378, 381; QA 372, 376, 382; TT 370, 371, 375, 380, 381
C Use symmetry	
4. Use visualization, spatial reasoning and geometric modeling to solve problems	
A Recognize and draw three-dimensional representations	
B Draw and use visual models	
*draw or use <u>visual models</u> to represent and solve problems	Student Edition: 170-171, 366-367, 368 #1-#14, 369 #23-#24, 379 Annotated Teacher's Edition: CE 129; ETL 129; GS 128; QA 129; TT 128, 131

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1. Understand measurable attributes of objects and the units, systems and processes of measurement	
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B Identify equivalent measures	
C Tell and use units of time	
D Count and compute money	
2. Apply appropriate techniques, tools and formulas to determine measurements	
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B Use angle measurement	
C Apply geometric measurements	
D Analyze precision	
apply concepts of successive approximation	See Glencoe's <i>MathMatters 2: An Integrated Program</i> © 2009. Student Edition: 57, 82-84, 86-89, 92-93, 96, 97, 538-541
E Use relationships within a measurement system	
*use <u>unit analysis</u> to solve problems involving rates, such as speed, density or population density	Student Edition: 50 #11-#14
Data and Probability	
1. Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them	
A Formulate questions	
B Classify and organize data	
C Represent and interpret data	
select and use appropriate graphical representation of data and given <u>one-variable quantitative data</u> , describe its shape and calculate <u>summary statistics</u>	Student Edition: 16-19, 20-21, 22 #1-#9, 23 #28-#29, 24-27, 28-31, 34-37, 38-41 Annotated Teacher's Edition: CE 17, 21, 22, 23, 25, 29, 39; ETL 16, 24, 39; GS 16; QA 18, 26, 30

STANDARDS	PAGE REFERENCES
2. Select and use appropriate statistical methods to analyze data	
A Describe and analyze data	
apply statistical measures of center to solve problems	Student Edition: 10-13, 14 #8-#26, 19 #42, 23 #24-#27, 33 #22, 43 #16-#22, 45 #14-#15 Annotated Teacher's Edition: CE 11, 15; ETL 10, 11; QA 12
B Compare data representations	
C Represent data algebraically	
given a scatterplot, determine a type of function which models the data	Student Edition: 34-37, 44 #35-#40, 83 #44-#46, 340 ex 3 Annotated Teacher's Edition: CE 35; ETL 35; GS 34; QA 36; TT 34
3. Develop and evaluate inferences and predictions that are based on data	
A Develop and evaluate inferences	
B Analyze basic statistical techniques	
4. Understand and apply basic concepts of probability	
A Apply basic concepts of probability	
describe the concepts of <u>sample space</u> and <u>probability distribution</u>	Student Edition: 446-449, 454 #1-#14, 455 #33-#34, 469 #29-#30 Annotated Teacher's Edition: CE 447, 454; QA 448; YY 446, 447, 454
B Use and describe compound events	
use and describe the concepts of conditional probability and independent events and how to compute the probability of a <u>compound event</u>	Student Edition: 456-459, 462 #1-#18, 463 #54, 470 #41-#48, 471 #15 Annotated Teacher's Edition: CE 457, 462; DI 456; ETL 458; QA 458; TT 457