



# MathMatters 2

An Integrated Program

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| <b>M11.A Numbers and Operations</b>  |   |
| <b>ASSESSMENT ANCHOR</b>   |   |
| <b>M11.A.1</b>   | <b>Demonstrate an understanding of numbers, ways of representing numbers, relationships among numbers and number systems.</b>   |
| <b>M11.A.1.1</b>   | Represent and/or use numbers in equivalent forms (e.g., integers, fractions, decimals, percents, square roots, exponents and scientific notation).<br><i>Reference: 2.1.8.A, 2.1.8.B, 2.1.11.A</i>                  |
| <b>M11.A.1.1.1</b><br>Find the square root of an integer to the nearest tenth using either a calculator or estimation.       | <b>Student Edition:</b><br>103 #38-#45, 136-139, 142 #48-#53, 143 #24-#32, 145 #25<br><b>Teacher's Edition:</b><br>CE 102, 137; DI 136; ETL 138; QA 138   |
| <b>M11.A.1.1.2</b><br>Express numbers and/or simplify expressions using scientific notation (including numbers less than 1). | <b>Student Edition:</b><br>87 ex 3, 88 #9-#15, 89 #320#48, 90 #43-#54, 91 #94, 94 #9, 96 #70-#73, 97 #37-#39, 98 #9, 416 #2<br><i>Mental Math Tip 87</i><br><b>Teacher's Edition:</b><br>AA 88; CE 87; QA 88; TT 86 |

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| <p><b>M11.A.1.1.3</b><br/>Simplify square roots. (e.g., <math>\sqrt{24} = 2\sqrt{6}</math>)</p>   | <p><b>Student Edition:</b><br/>103 #38-#45, 136-139, 142 #48-#53, 143 #24-#32, 145 #25</p> <p><b>Teacher’s Edition:</b><br/>CE 102, 137; DI 136; ETL 138; QA 138</p>                        |
| <p><b>M11.A.1.2</b> Apply number theory concepts to show relationships between real numbers in problem-solving settings.<br/><i>Reference: 2.1.8.E</i></p>  |   |
| <p><b>M11.A.1.2.1</b><br/>Find the Greatest Common Factor (GCF) and/or the Least Common Multiple (LCM) for sets of monomials.</p>   | <p><b>Student Edition:</b><br/>374 #21-#26, 404-407, 412 #1, 414 #51-#62</p> <p><b>Teacher’s Edition:</b><br/>CE 374, 405; QA 406; TT 374, 405</p>  |
| <p><b>M11.A.1.3</b> Estimate the value of an irrational number.<br/><i>Reference: 2.2.8.C</i></p>   |   |
| <p><b>M11.A.1.3.1</b><br/>Locate/identify irrational numbers at the approximate location on a number line.</p>  | <p>Graphing real numbers can be found on:</p> <p><b>Student Edition:</b><br/>52-55, 60 #1-#18, 61 #55-#58, 94 #11-#12, 97 #1-#2</p> <p><b>Teacher’s Edition:</b><br/>CE 53; QA 54</p>       |
| <p><b>M11.A.1.3.2</b><br/>Compare and/or order any real numbers (rational and irrational may be mixed).</p>   | <p><b>Student Edition:</b><br/>53 ex 2, 54 #4-#6, 55 #24-#29, 60 #7-#12, 61 #49-#54, 93 #26-#28, 94 #13-#15</p> <p><b>Teacher’s Edition:</b><br/>CE 53; QA 54</p>                           |
| <p><b>ASSESSMENT ANCHOR</b></p>   |   |
| <p><b>M11.A.2</b> Understand the meanings of operations, use operations and understand how they relate to each other.</p>   |   |
| <p><b>M11.A.2.1</b> Apply ratio and/or proportion in problem-solving situations.<br/><i>Reference: 2.2.11.A, 2.8.11.P</i></p>   |   |
| <p><b>M11.A.2.1.1</b><br/>Solve problems using operations with rational numbers including rates and percents (single and multi-step and multiple procedure operations) (e.g., distance, work and mixture problems, etc.).</p> | <p><b>Student Edition:</b><br/>102-103, 123 ex 2, 124 #38, 125 #45-#47, 130 #22-#23, 141 #35, 145 #24</p> <p><i>Problem Solving Tip</i> 123</p> <p><b>Teacher’s Edition:</b><br/>CE 123</p> |

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| <p><b>M11.A.2.1.2</b><br/>Solve problems using direct and inverse proportions.</p>  | <p><b>Student Edition:</b><br/>276-279, 280 #12-#20, 282-285, 288 #61-#68, 289 #27-#28, 291 #11</p> <p><b>Teacher’s Edition:</b><br/>AA 279, 289; CE 277, 280, 283; ETL 277, 284, 285; GS 276; QA 278, 284; TT 282</p>               |
| <p><b>M11.A.2.1.3</b><br/>Identify and/or use proportional relationships in problem-solving settings.</p>   | <p><b>Student Edition:</b><br/>276 ex 1, 277 ex 2, 278 #3-#6, 279 #20, 280 #18-#20, 282 ex 1, 284 #13-#16, 285 #21, 289 #27-#28, 291 #11</p> <p><b>Teacher’s Edition:</b><br/>CE 277, 280, 283; ETL 277, 285; GS 276</p>             |
| <p><b>M11.A.2.2</b> Use exponents, roots and/or absolute value to solve problems.<br/><i>Reference: 2.1.11.A</i></p>  |  |
| <p><b>M11.A.2.2.1</b><br/>Simplify/evaluate expressions involving positive and negative exponents, roots and/or absolute value (may contain all types of real numbers - exponents should not exceed power of 10).</p>   | <p><b>Student Edition:</b><br/>82 ex 1, 85 #37, 86-89, 90 #31-#42, 91 #92, 96 #66-#69, 97 #35-#36, 99 #16</p> <p><b>Teacher’s Edition:</b><br/>AA 88; CE 83, 87; GS 82; QA 88; TT 82, 86, 90</p>                                     |
| <p><b>M11.A.2.2.2</b><br/>Simplify/evaluate expressions involving multiplying with exponents (e.g., <math>x^6 * x^7 = x^{13}</math>), powers of powers (e.g., <math>(x^6)^7 = x^{42}</math>) and powers of products <math>(2x^2)^3 = 8x^6</math> (positive exponents only).</p> | <p><b>Student Edition:</b><br/>83 ex 2, 84 ex 3, 85 #38-#45, 90 #13-#30, 91 #83-#84, 96 #62-#65, 97 #26-#29, 98 #8, 99 #15</p> <p><b>Teacher’s Edition:</b><br/>AA 84; CE 83; GS 86; PE 83; QA 84</p>                                |
| <p><b>ASSESSMENT ANCHOR</b></p>   |  |
| <p><b>M11.A.3</b> Compute accurately and fluently and make reasonable estimates.</p>  |  |
| <p><b>M11.A.3.1</b> Apply the order of operations in computation and in problem-solving situations.<br/><i>Reference: 2.2.8.A</i></p>   |  |
| <p><b>M11.A.3.1.1</b><br/>Simplify/evaluate expressions using the order of operations to solve problems (any rational numbers may be used).</p>   | <p><b>Student Edition:</b><br/>56-59, 60 #25-#30, 61 #59-#64, 71 #5-#10, 85 #55-#60, 91 #61-#66, 94, 95 #17-#18, 97 #6-#8, 429 #30-#35</p> <p><b>Teacher’s Edition:</b><br/>AA 59; CE 57, 60; ETL 57; FG 58; GS 62; QA 58; TT 56</p> |
| <p><b>M11.A.3.2</b> Use estimation strategies in problem-solving situations.<br/><i>Reference: 2.2.11.B, 2.2.11.D</i></p>   |  |
| <p><b>M11.A.3.2.1</b><br/>Use estimation to solve problems.</p>   | <p><b>Student Edition:</b><br/>5 #29-#40, 508-509, 512 #48-#50</p> <p><b>Teacher’s Edition:</b><br/>CE 4, 509; GS 508; QA 5, 509; TT 4</p>   |

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| <b>M11.B Measurement</b>  |  |
| <b>ASSESSMENT ANCHOR</b>  |  |
| <b>M11.B.1</b> Demonstrate an understanding of measurable attributes of objects and figures, and the units, systems and processes of measurement.<br><b>Not assessed at grade 11.</b>   |  |
| <b>ASSESSMENT ANCHOR</b>  |  |
| <b>M11.B.2</b> Apply appropriate techniques, tools and formulas to determine measurements.  |  |
| <b>M11.B.2.1</b> Use and/or compare measurements of angles.<br><i>Reference: 2.3.11.A, 2.3.11.B</i>   |  |
| <b>M11.B.2.1.1</b><br>Measure and/or compare angles in degrees (up to 360°) (protractor must be provided or drawn).   | <b>Student Edition:</b><br>295 #27-#34, 307 ex 3, 308 ex 4, 309 #13-#14<br><b>Teacher's Edition:</b><br>CE 307   |
| <b>M11.B.2.2</b> Use and/or develop procedures to determine or describe measures of perimeter, circumference, area, surface area and/or volume. (May require conversions within the same system.)<br><i>Reference: 2.3.8.A, 2.3.8.D</i> |  |
| <b>M11.B.2.2.1</b><br>Calculate the surface area of prisms, cylinders, cones, pyramids and/or spheres. Formulas are provided on the reference sheet.  | <b>Student Edition:</b><br>426-429, 430 #16-#18, 432-435, 440 #1-#8, 441 #7-#9, 451 #20, 461 #23-#28, 462, 463 #3<br><b>Teacher's Edition:</b><br>AA 426; CE 427, 433, 440; DI 432; ETL 434; FG 435; QA 428, 434; TT 427, 433, 463 |
| <b>M11.B.2.2.2</b><br>Calculate the volume of prisms, cylinders, cones, pyramids and/or spheres. Formulas are provided on the reference sheet.  | <b>Student Edition:</b><br>452-455, 456-459, 460 #1-#18, 461 #23-#28, 466 #37-#43, 467 #14-#16, 468 #11, 469 #26<br><b>Teacher's Edition:</b><br>CE 453, 457, 460, 463; ETL 458; GS 462; QA 454, 458; TT 452, 453, 456             |
| <b>M11.B.2.2.3</b><br>Estimate area, perimeter or circumference of an irregular figure.   | Making Nets to find surface area is similar to finding area of irregular figures and can be found on:<br><b>Student Edition:</b><br>426-429  |
| <b>M11.B.2.2.4</b><br>Find the measurement of a missing length given the perimeter, circumference, area or volume.  | <b>Student Edition:</b><br>454 #18, 458 #14-#15, 459 #23, 460 #17, 466 #38   |

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| <p><b>M11.B.2.3</b> Describe how a change in one dimension of a figure (2 or 3 dimensional) affects other measurements of that figure.</p> <p><b>Reference: 2.3.8.E</b></p>  |   |
| <p><b>M11.B.2.3.1</b><br/>Describe how a change in the linear dimension of a figure affects its perimeter, circumference, area or volume.</p> <ul style="list-style-type: none"> <li>• How does changing the length of the radius of a circle affect the circumference of the circle?</li> <li>• How does changing the length of the edge of a cube affect the volume of the cube?</li> <li>• How does changing the length of the base of a triangle affect the area of the triangle?</li> </ul> | <p><b>Student Edition:</b><br/>477 #29</p> <p><b>Teacher’s Edition:</b><br/>ETL 476; QA 228</p>   |
| <p><b>M11.C Geometry</b></p>   |   |
| <p><b>ASSESSMENT ANCHOR</b></p>  |   |
| <p><b>M11.C.1 Analyze characteristics and properties of two- and three-dimensional geometric shapes and demonstrate understanding of geometric relationships.</b></p>  |   |
| <p><b>M11.C.1.1 Identify and/or use parts of circles and segments associated with circles.</b></p> <p><b>Reference: 2.9.11.F</b></p>   |   |
| <p><b>M11.C.1.1.1</b><br/>Identify and/or use the properties of a radius, diameter and/or tangent of a circle (given numbers should be whole).</p>   | <p><b>Student Edition:</b><br/>226 ex 1, 228 #1, 229 #25, 230 #15, 231 #48, 236 #48, 237 #26</p> <p><b>Teacher’s Edition:</b><br/>CE 227; QA 228</p>  |
| <p><b>M11.C.1.1.2</b><br/>Identify and/or use the properties of arcs, semicircles, inscribed angles and/or central angles.</p>   | <p><b>Student Edition:</b><br/>227 ex 2, 228 ex 4, 229 #28, 230 #18, 231 #50, 236 #44, 237 #28-#29, 239 #23</p> <p><b>Teacher’s Edition:</b><br/>CE 227</p>   |
| <p><b>M11.C.1.2 Recognize and/or apply properties of angles, triangles and quadrilaterals.</b></p> <p><b>Reference: 2.9.8.D, 2.9.11.C</b></p>  |   |
| <p><b>M11.C.1.2.1</b><br/>Identify and/or use properties of triangles (e.g., medians, altitudes, angle bisectors, side/angle relationships, Triangle Inequality Theorem).</p>  | <p><b>Student Edition:</b><br/>206-209, 210 #34-#37, 211 #47-#50, 212-215, 220 #1-#6, 221 #25-#27, 235 #32-#34, 237 #17-#18, 238 #10</p> <p><b>Teacher’s Edition:</b><br/>AA 208; CE 208, 210, 213; DI 212; ETL 206, 209, 214; QA 208, 214; TT 207, 213</p> |

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| <p><b>M11.C.1.2.2</b><br/>Identify and/or use properties of quadrilaterals (e.g., parallel sides, diagonals, bisectors, congruent sides/angles and supplementary angles).</p>                                      | <p><b>Student Edition:</b><br/>216-219, 220 #13-#24, 222-225, 235 #35-#37, 237 #19-#22, 239 #25</p> <p><b>Teacher’s Edition:</b><br/>CE 217, 223; ETL 216, 219, 223; QA 218, 224; TT 217, 220, 221</p>   |
| <p><b>M11.C.1.2.3</b><br/>Identify and/or use properties of isosceles and equilateral triangles.</p>   | <p><b>Student Edition:</b><br/>206, 208 #15-#16, 209 #36, 210 #34-#37</p>  |
| <p><b>M11.C.1.3</b> Use properties of congruence, correspondence and similarity in problem-solving settings involving two- and three-dimensional figures.<br/><b>Reference: 2.9.11.B</b></p>                       |  |
| <p><b>M11.C.1.3.1</b><br/>Identify and/or use properties of congruent and similar polygons or solids.</p>  | <p><b>Student Edition:</b><br/>212-215, 220 #1-#12, 221 #25-#27, 235 #32-#34, 237 #17-#18, 238 #10, 474-477, 482 #1-#9</p> <p><b>Teacher’s Edition:</b><br/>AA 474; CE 213, 220, 475, 482; DI 212; ETL 214; QA 214, 476; TT 213, 235, 475, 482</p> |
| <p><b>M11.C.1.4</b> Solve problems involving right triangles using the Pythagorean Theorem.<br/><b>Reference: 2.10.11.B</b></p>  |  |
| <p><b>M11.C.1.4.1</b><br/>Find the measure of a side of a right triangle using the Pythagorean Theorem (Pythagorean Theorem included on the reference sheet).</p>  | <p><b>Student Edition:</b><br/>484-487, 492 #1-#7, 493 #6-#8, 503 #23-#25, 511 #16-#19, 513 #4-#7</p> <p><b>Teacher’s Edition:</b><br/>CE 485; DI 484; ETL 485, 487; GS 484; QA 486; TT 493</p>  |
| <p><b>ASSESSMENT ANCHOR</b><br/><b>M11.C.2</b> Identify and/or apply concepts of transformations or symmetry.<br/><b>Not assessed at grade 11.</b></p>   |  |
| <p><b>ASSESSMENT ANCHOR</b><br/><b>M11.C.3</b> Locate points or describe relationships using the coordinate plane.<br/><b>M11.C.3.1</b> Solve problems using analytic geometry.<br/><b>Reference: 2.9.11.G</b></p> |  |
| <p><b>M11.C.3.1.1</b><br/>Calculate the distance and/or midpoint between 2 points on a number line or on a coordinate plane (formula provided on the reference sheet).</p>   | <p><b>Student Edition:</b><br/>244-247, 252 #1-#25, 253 #44-#49, 263 #49-#51, 273 #28-#30, 281 #31-#34, 286 #11-#22, 289 #1-#3, 290 #8, 341 #35-#37</p> <p><b>Teacher’s Edition:</b><br/>AA 246; CE 245; ETL 245; QA 246</p>                       |

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| <p><b>M11.C.3.1.2</b><br/>Relate slope to perpendicularity and/or parallelism (limit to linear algebraic expressions; slope formula provided on the reference sheet).</p>                            | <p><b>Student Edition:</b><br/>334-337, 342 #7-#12, 343 #40-#45, 353 #1-#3, 366 #11-#13, 369 #4-#6, 370 #9</p> <p><b>Teacher’s Edition:</b><br/>CE 335, 342; ETL 336; QA 336</p>  |
| <p><b>M11.D Algebraic Concepts</b></p>   |   |
| <p><b>ASSESSMENT ANCHOR</b></p>  |   |
| <p><b>M11.D.1 Demonstrate an understanding of patterns, relations and functions.</b></p>   |   |
| <p><b>M11.D.1.1 Analyze and/or use patterns or relations.</b><br/><i>Reference: 2.8.11.Q, 2.8.11.A, 2.8.11.O</i></p>   |   |
| <p><b>M11.D.1.1.1</b><br/>Analyze a set of data for the existence of a pattern and represent the pattern algebraically and/or graphically.</p>   | <p><b>Student Edition:</b><br/>274-275, 288 #59-#60, 289 #26</p> <p><b>Teacher’s Edition:</b><br/>CE 275; QA 275</p>  |
| <p><b>M11.D.1.1.2</b><br/>Determine if a relation is a function given a set of points or a graph.</p>  | <p><b>Student Edition:</b><br/>264, 266 ex 3, 267 #11-#13, 272 #5-#7, 281 #25-#28, 287 #51-#53</p> <p><b>Teacher’s Edition:</b><br/>CE 265, 272; QA 266</p>   |
| <p><b>M11.D.1.1.3</b><br/>Identify the domain, range or inverse of a relation (may be presented as ordered pairs or a table).</p>  | <p><b>Teacher’s Edition:</b><br/>CE 265; QA 266; TT 265</p>   |
| <p><b>ASSESSMENT ANCHOR</b></p>  |   |
| <p><b>M11.D.2 Represent and/or analyze mathematical situations using numbers, symbols, words, tables and/or graphs.</b></p>  |   |
| <p><b>M11.D.2.1 Write, solve and/or graph linear equations and inequalities using various methods.</b><br/><i>Reference: 2.8.8.F, 2.8.11.D, 2.8.11.H, 2.8.11.J, 2.8.11.N, 2.8.11.L, 2.8.11.K</i></p> |   |
| <p><b>M11.D.2.1.1</b><br/>Solve compound inequalities and/or graph their solution sets on a number line (may include absolute value inequalities).</p>   | <p><b>Student Edition:</b><br/>53 ex 3b, 54 #7-#9, 55 #42-#43, 60 #15-#16, 61 #55, 71 #4, 91 #59</p> <p><b>Teacher’s Edition:</b><br/>CE 53</p>   |
| <p><b>M11.D.2.1.2</b><br/>Identify or graph functions, linear equations or linear inequalities on a coordinate plane.</p>  | <p><b>Student Edition:</b><br/>254-257, 258-261, 262, 263 #13-#18, 268-271, 272 #1-#4, 273 #35-#37, 287 #31-#42, 289 #8-#10, 333 #38-#46</p> <p><b>Teacher’s Edition:</b><br/>CE 255, 259, 262, 268, 272; ETL 255; QA 260, 270; TT 258, 259</p> |

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| <p><b>M11.D.2.1.3</b><br/>Write, solve and/or apply a linear equation (including problem situations).</p>  | <p><b>Student Edition:</b><br/>258-261, 268-271, 273 #35-#37, 287 #31-#48, 333 #38-#46</p> <p><b>Teacher’s Edition:</b><br/>CE 259, 262, 268, 272; QA 260, 270; TT 258, 259</p>  |
| <p><b>M11.D.2.1.4</b><br/>Write and/or solve systems of equations using graphing, substitution and/or elimination (limit systems to 2 equations).</p>  | <p><b>Student Edition:</b><br/>338-341, 342 #19-#33, 343 #37-#39, 344-347, 348-351, 352 #1-#33, 353 #37-#45</p> <p><b>Teacher’s Edition:</b><br/>CE 339, 342, 345, 349, 352; ETL 350; FG 351; GS 338; QA 340, 346, 350; TT 338, 339, 344, 345, 348, 349, 353</p> |
| <p><b>M11.D.2.1.5</b><br/>Solve quadratic equations using factoring (integers only – not including completing the square or the Quadratic Formula).</p>  | <p>Solving by graphing can be found on:</p> <p><b>Student Edition:</b><br/>270 #30</p>   |
| <p><b>M11.D.2.2 Simplify expressions involving polynomials.</b><br/><b>Reference: 2.8.11.S</b></p>   |  |
| <p><b>M11.D.2.2.1</b><br/>Add, subtract and/or multiply polynomial expressions (express answers in simplest form – nothing larger than a binomial multiplied by a trinomial).</p>                          | <p><b>Student Edition:</b><br/>376-379, 380-383, 384 #7-#50, 385 #51-#59, 390-393, 394 #19-#40</p> <p><b>Teacher’s Edition:</b><br/>CE 377, 381, 384, 391; DI 384; ETL 376, 380, 382; GS 386, 390; QA 378, 382, 392; TT 378, 385, 391</p>                        |
| <p><b>M11.D.2.2.2</b><br/>Factor algebraic expressions, including difference of squares and trinomials (trinomials limited to the form <math>ax^2+bx+c</math> where <math>a</math> is not equal to 0).</p> | <p><b>Student Edition:</b><br/>404-407, 408-411, 414 #51-#68, 415 #31-#36, 416 #12</p> <p><b>Teacher’s Edition:</b><br/>CE 405, 409; DI 408; ETL 409; GS 408; QA 406, 410; TT 405</p>  |
| <p><b>M11.D.2.2.3</b><br/>Simplify algebraic fractions.</p>  | <p><b>Student Edition:</b><br/>386-389, 394 #1-#15, 395 #45-#46, 403 #34-#37, 413 #23-#28, 415 #25-#30, 416 #11, 417 #26</p> <p><b>Teacher’s Edition:</b><br/>AA 389; CE 387, 394; DI 386; QA 388; TT 387, 388</p>   |

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| <b>ASSESSMENT ANCHOR</b>   |  |                 |
| <b>M11.D.3 Analyze change in various contexts.</b>   |  |                 |
| <b>M11.D.3.1 Describe and/or determine change.</b><br><i>Reference: 2.8.8.J, 2.11.8.B</i>  |  |                 |
| <b>M11.D.3.1.1</b><br>Identify, describe and/or use constant or varying rates of change.   | <b>Student Edition:</b><br>276-279, 280 #12-#20, 282-285, 288 #61-#68, 289 #27-#28, 291 #11<br><b>Teacher's Edition:</b><br>AA 279, 289; CE 277, 280, 283; ETL 277, 284, 285; GS 276; QA 278, 284; TT 282            |                 |
| <b>M11.D.3.1.2</b><br>Determine how a change in one variable relates to a change in a second variable (e.g., $y=4/x$ , if $x$ doubles, what happens to $y$ ?).   | <b>Student Edition:</b><br>279 #28-#31, 285 #27<br><b>Teacher's Edition:</b><br>AA 279; QA 270, 278, 284   |                 |
| <b>M11.D.3.2 Compute and/or use the slope of a line.</b><br><i>Reference: 2.8.11.J, 2.8.11.L</i>   |  |                 |
| <b>M11.D.3.2.1</b><br>Apply the formula for the slope of a line to solve problems (formula given on reference sheet).  | <b>Student Edition:</b><br>248-251, 252 #26-#28, 281 #21-#24, 286 #23-#24, 287 #25-#30, 289 #7, 291 #15<br><b>Teacher's Edition:</b><br>CE 249, 252; QA 250; TT 248  |                 |
| <b>M11.D.3.2.2</b><br>Given the graph of the line, 2 points on the line, or the slope and a point on a line, write or identify the linear equation in point-slope, standard and/or slope-intercept form. | <b>Student Edition:</b><br>258-261, 268-271, 273 #35-#37, 287 #31-#48, 333 #38-#46<br><b>Teacher's Edition:</b><br>CE 259, 262, 268, 272; QA 260, 270; TT 258, 259   |                 |
| <b>M11.D.3.2.3</b><br>Compute the slope and/or y-intercept represented by a linear equation or graph.  | <b>Student Edition:</b><br>248-251, 252 #26-#28, 254 ex 1, 256 #11-#14, 262 #1-#6, 263 #56-#58, 273 #31-#34, 281 #21-#24, 289 #8-#10<br><b>Teacher's Edition:</b><br>CE 249, 252, 255, 262; QA 250, 256; TT 248, 254 |                 |

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| <b>ASSESSMENT ANCHOR</b>  |  |                 |
| <b>M11.D.4 Describe or use models to represent quantitative relationships.</b>  |  |                 |
| <b>M11.D.4.1</b> Interpret and/or use linear, quadratic and/or exponential functions and their equations, graphs or tables.<br><i>Reference: 2.8.11.K, 2.8.11.Q</i>                             |  |                 |
| <b>M11.D.4.1.1</b><br>Match the graph of a given function to its table or equation.   | <b>Student Edition:</b><br>254-257, 262 #7-#27, 263 #53-#55, 273 #35-#37, 274-275, 287 #46-#48, 289 #17<br><b>Teacher's Edition:</b><br>CE 255, 259; ETL 255; QA 275; TT 259                                     |                 |
| <b>M11.E Data Analysis and Probability</b>  |  |                 |
| <b>ASSESSMENT ANCHOR</b>  |  |                 |
| <b>M11.E.1 Formulate or answer questions that can be addressed with data and/or organize, display, interpret or analyze data.</b>   |  |                 |
| <b>M11.E.1.1</b> Appropriately display and/or use data in problem-solving settings.<br><i>Reference: 2.6.11.A, 2.6.8.E</i>  |  |                 |
| <b>M11.E.1.1.1</b><br>Create and/or use appropriate graphical representations of data, including box-and-whisker plots, stem-and-leaf plots or scatter plots.                                   | <b>Student Edition:</b><br>16-19, 20-23, 24 #1-#9, 28-31, 32 #10-#14, 33 #20-#22, 44 #26-#28, 45 #3-#5, 98 #3<br><b>Teacher's Edition:</b><br>CE 17, 21, 39; DI 20; ETL 21; QA 22, 30; TT 16                     |                 |
| <b>M11.E.1.1.2</b><br>Analyze data and/or answer questions based on displayed data (box-and-whisker plots, stem-and-leaf plots or scatter plots).   | <b>Student Edition:</b><br>10-13, 14 #9-#17, 15 #22-#24, 25 #21-#23, 33 #19, 42 #13-#14, 45 #6, 46 #3, 47 #11-#13<br><b>Teacher's Edition:</b><br>AA 10; CE 11, 15; ETL 11; GS 10; QA 12                         |                 |
| <b>ASSESSMENT ANCHOR</b>  |  |                 |
| <b>M11.E.2 Select and/or use appropriate statistical methods to analyze data.</b>   |  |                 |
| <b>M11.E.2.1</b> Use measures of central tendency to describe a set of data.<br><i>Reference: 2.6.8.A, 2.6.11.A</i>   |  |                 |
| <b>M11.E.2.1.1</b><br>Calculate or select the appropriate measure of central tendency (mean, mode or median) of a set of data given or represented on a table, line plot or stem-and-leaf plot. | <b>Student Edition:</b><br>10 ex 1, 11 ex 2, 12 #1-#4, 13 #16-#18, 14 #9-#14, 15 #22-#24, 24 #5, 25 #25, 42 #13-#14, 45 #6, 46 #3, 47 #11-#13<br><b>Teacher's Edition:</b><br>AA 10; CE 11; ETL 11; GS 28; QA 12 |                 |

| STANDARDS   | PAGE REFERENCES   |
|---|---|
| <p><b>M11.E.2.1.2</b><br/>Calculate and/or interpret the range, quartiles and interquartile range of data.</p>  | <p><b>Student Edition:</b><br/>11 ex 2, 12 #1-#2, 14 #9-#14, 15 #22-#24, 24 #6, 28-31, 32 #7-#14, 44 #26-#28, 47 #14</p> <p><b>Teacher’s Edition:</b><br/>CE 24</p>   |
| <p><b>M11.E.2.1.3</b><br/>Describe how outliers affect measures of central tendency.</p>  | <p><b>Student Edition:</b><br/>13 #19-#22, 17, 19 #26-#27, 29</p> <p><b>Teacher’s Edition:</b><br/>AA 10; CE 29; ETL 29; QA 30</p>  |
| <p><b>ASSESSMENT ANCHOR</b></p>   |   |
| <p><b>M11.E.3 Understand and/or apply basic concepts of probability or outcomes.</b></p>  |   |
| <p><b>M11.E.3.1 Apply probability and/or odds to practical situations.</b><br/><i>Reference: 2.7.11.A, 2.7.11.E</i></p>   |   |
| <p><b>M11.E.3.1.1</b><br/>Find probabilities for independent, dependent or compound events and represent as a fraction, decimal or percent).</p>                              | <p><b>Student Edition:</b><br/>168-171, 176 #1-#18, 177 #41, 183 #21-#23, 184 #24-#27, 185 #7-#11, 186 #11, 187 #22</p> <p><b>Teacher’s Edition:</b><br/>ETL 169</p>  |
| <p><b>M11.E.3.1.2</b><br/>Find, convert and/or compare the probability and/or odds of a simple event.</p>   | <p><b>Student Edition:</b><br/>150-153, 154-155, 156 #1-#10, 157 #15-#17, 158-161, 166 #2-#6, 167 #24-#26, 177 #38, 182 #11-#14</p> <p><b>Teacher’s Edition:</b><br/>CE 151, 159; QA 155</p>  |
| <p><b>M11.E.3.2 Apply counting techniques in problem-solving settings.</b><br/><i>Reference: 2.7.8.A</i></p>  |   |
| <p><b>M11.E.3.2.1</b><br/>Determine the number of permutations and/or combinations or apply the fundamental counting principle (formula provided on the reference sheet).</p> | <p><b>Student Edition:</b><br/>158-161, 172-175, 176 #19-#32, 177 #42-#45, 178-181, 183 #18-#19, 184 #28-#33, 185 #1-#4</p> <p><b>Teacher’s Edition:</b><br/>CE 159, 173, 176, 179; ETL 179, 180, 181; GS 172; QA 174, 180; TT 158, 176</p> |

| STANDARDS  |  | PAGE REFERENCES |
|--|--|-----------------|
| <b>ASSESSMENT ANCHOR</b>   |  |                 |
| <b>M11.E.4</b>   | <b>Develop and/or evaluate inferences and predictions or draw conclusions based on data or data displays.</b>  |                 |
| <b>M11.E.4.1</b>   | <b>Make predictions using data displays and probability.</b><br><b>Reference: 2.7.8.E, 2.6.11.D</b>  |                 |
| <b>M11.E.4.1.1</b><br>Estimate or calculate to make predictions based on a circle, line, bar graph or given situation. | <b>Student Edition:</b><br>10-13, 14 #9-#17, 15 #22-#24, 25 #21-#23, 33 #19, 42 #13-#14, 45 #6, 46 #3, 47 #11-#13<br><b>Teacher's Edition:</b><br>AA 10; CE 11, 15; ETL 11; GS 10; QA 12     |                 |
| <b>M11.E.4.1.2</b><br>Use probability to predict outcomes.   | <b>Student Edition:</b><br>168-171, 176 #1-#18, 177 #41, 183 #21-#23, 184 #24-#27, 185 #7-#11, 186 #11, 187 #22<br><b>Teacher's Edition:</b><br>ETL 169                                      |                 |
| <b>M11.E.4.2</b>   | <b>Analyze and/or interpret data on a scatter plot and/or use a scatter plot to make predictions.</b><br><b>Reference: 2.6.11.C, 2.6.11.D</b>  |                 |
| <b>M11.E.4.2.1</b><br>Draw, find and/or write an equation for a line of best fit for a scatter plot.                   | <b>Student Edition:</b><br>20-23, 24 #10-#19, 28-31, 32 #7-#18, 33 #19-#22, 43 #19-#21, 45 #11-#12, 47 #22-#24, 79 #57, 145 #12<br><b>Teacher's Edition:</b><br>CE 21, 24, 29; ETL 21; QA 30 |                 |
| <b>M11.E.4.2.2</b><br>Make predictions using the equations or graphs of best-fit lines of scatter plots.               | <b>Student Edition:</b><br>23 #7, 24 #19, 43 #20-#21, 45 #12, 79 #57<br><b>Teacher's Edition:</b><br>CE 21, 24; ETL 21   |                 |