



Algebra

Concepts and Applications
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STANDARDS		PAGE REFERENCES
NUMBER AND OPERATIONS		
1.	Understand relationships between numbers and their properties and perform operations fluently.	
a.	Compare and contrast the subsets of real numbers. (DOK 1)	Student Edition: 52-57, 94-99, 132, 600-605, 691, 696 Teacher Wraparound Edition: 5MC 58, 100; EA 56, 97; EC 57, 99, 345; ICE 53-55, 95-96, 601-602; MTL 52; OEA 57, 99; RA 97; TT 53, 94, 95, 601
b.	Simplify and evaluate expressions using order of operations and use real number properties to justify solutions. (DOK 2)	Student Edition: 8-13, 14-18, 19-23, 26, 37, 45, 47, 69, 72-73, 76-78, 83-84, 87-88, 103, 112-116, 140-142, 176-179 Teacher Wraparound Edition: 5MC 19; EA 11; EC 13, 18, 23, 57; ICE 9-10, 15-16
c.	Express, interpret, and compute numbers using scientific notation in meaningful contexts. (DOK 1)	Student Edition: 352-356, 361, 375, 377, 387 #66, 425 #67, 708, 735 #2 Teacher Wraparound Edition: 5MC 357, 382 #3; EA 355; EC 356; ICE 353-354; MTL 352; OEA 356; RA 354; TT 352, 353, 354

STANDARDS		PAGE REFERENCES
d.	Apply the concept of Greatest Common Factor (GCF) and Least Common Multiple (LCM) to monomials with variables. (DOK 2)	Student Edition: 420-424, 426-431, 614-619, 626-632 <i>Algebra Lab</i> 425 Teacher Wraparound Edition: AE 422, 427, 615 Ex 1; FMC 427, 442; SQ 426; TOD 424
e.	Use the inverse relationship to develop the concept of roots and perfect squares. (DOK 2)	Student Edition: 357-361, 362-365, 375-376, 377, 599, 709 <i>Hands-On Algebra</i> 362 Teacher Wraparound Edition: 5MC 362, 366; EA 360; EC 361; ICE 357-359, 363
ALGEBRA		
2.	Understand, represent, and analyze patterns, relations, and functions.	
a.	Given a literal equation, solve for a specified variable of degree one. (DOK 1)	Student Edition: 209 #3
b.	Explain and illustrate how changes in one variable may result in a change in another variable. (DOK 2)	Student Edition: 269 #34, 270, 275 #30, 284-289, 338-339, 597 #5, 749 #6 <i>Chapter 9 Investigation</i> 410-411 <i>Graphing Calculator Exploration</i> 338-339 Teacher Wraparound Edition: GCE 338; MTL 270, 410; TT 292, 411
c.	Solve and check multi-step equations and inequalities, including distributive property, variables on both sides, and rational coefficients. (DOK 2)	Student Edition: 117-121, 122-127, 128-131, 133-134, 135, 160-164, 165-170, 171-175, 176-179, 181-182, 183, 697-698, 699-700 Teacher Wraparound Edition: 5MC 122, 128, 140 #2-#4, 165, 171, 176, 188 #3 & #4; ICE 118-119, 123-125, 128-130, 161-162, 165-168, 171-172, 177
d.	Use real-world data to express slope as a rate of change. (DOK 2)	Student Edition: 288-289, 300 #46 & #47, 727 #1

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e.	Graph solutions to linear inequalities. (DOK 2)	<p>Student Edition: 504-508, 518, 535-539, 542, 544, 586-590, 594, 595, 715, 716, 729 <i>Graphing Calculator Exploration</i> 588 <i>Math In The Workplace</i> 591</p> <p>Teacher Wraparound Edition: 5MC 509, 600 #5; GCE 588; ICE 505-506, 536-537, 587; OEA 508</p>
f.	Write linear equations given slope and y-intercept or two points. (DOK 2)	<p>Student Edition: 290-295, 296-301, 308-309, 322-327, 329-330, 331, 338-339, 705-707, 727 <i>Chapter 7 Investigation</i> 308-309 <i>Graphing Calculator Exploration</i> 338-339</p> <p>Teacher Wraparound Edition: 5MC 296, 302, 336; EC 301, 315; ICE 291-292, 297-298, 323-325,</p>
g.	Identify domain, range, slope, and intercepts of functions. (DOK 1)	<p>Student Edition: 238-243, 244-249, 250-255, 310-315, 316-321, 329, 706-707, 726, 727</p> <p>Teacher Wraparound Edition: 5MC 244, 250, 316; EC 243; ICE 239-240, 245-246, 317-318; MTL 322; TT 324</p>
h.	Develop generalizations to characterize the behaviors of graphs (linear, quadratic, and absolute value). (DOK 2)	<p>Student Edition: 316-321, 464-467 <i>Graphing Calculator Exploration</i> 317</p> <p>Teacher Wraparound Edition: 5MC 322, 468; EA 466; EC 467; GCE 317; ICE 317-318, 464-466; OEA 467; RA 318, 465</p>
i.	Classify and determine degree of a polynomial and arrange polynomials in ascending or descending order of a variable. (DOK 1)	<p>Student Edition: 382-387, 391, 393, 398, 412, 415, 710</p> <p>Teacher Wraparound Edition: 5MC 388; EA 386; EC 387; ICE 383-384; OEA 387; RA 384; TT 383</p>

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j.	Apply ratios and use proportional reasoning to solve real-world algebraic problems. (DOK 2).	<p>Student Edition: 189-193, 194-197, 198-203, 204-209, 212-217, 221, 267-269, 270-275, 410-411, 571 #50, 635 #4, 649 #54, 701-702 <i>Chapter 9 Investigation</i> 410-411</p> <p>Teacher Wraparound Edition: 5MC 194, 198; EA 268; EC 197; ICE 189-191, 195, 199-200, 205-207, 212-215</p>
k.	Add, subtract, multiply, and divide polynomial expressions. (DOK 1)	<p>Student Edition: 388-393, 394-398, 399-404, 405-409, 413-414, 415, 425, 430, 432, 501, 710-711, 728 <i>Hands-On Algebra</i> 388-389, 400</p> <p>Teacher Wraparound Edition: 5MC 394, 399, 405, 420; ICE 389-391, 394-396, 400-402, 406-407, 430; OEA 393</p>
l.	Analyze the relationship between x and y values, and determine whether a relation is a function. (DOK 2)	<p>Student Edition: 238-243, 244-249, 250-255, 256-261, 262-263, 276-278, 279, 289 #32-#33, 356 #61, 425 #68 <i>Investigation</i> 262-263</p> <p>Teacher Wraparound Edition: 5MC 244, 250, 264; EC 261; ICE 239-240, 245-247, 251-253, 257-259; OEA 261</p>
GEOMETRY		
3.	Understand geometric principles of polygons, angles and two and three dimensional figures.	
a.	Apply the Pythagorean Theorem to solve problems. (DOK 2)	<p>Student Edition: 366-371, 372-373, 376, 378-379, 606-611, 680-681, 709 <i>Chapter 8 Investigation</i> 372-373 <i>Hands-On Algebra</i> 606</p> <p>Teacher Wraparound Edition: 5MC 382 #5; EA369; EC 371; HOA 607; ICE 367-368; MTL 366; OEA 371; RA 369; TT 367</p>

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b.	Apply proportional reasoning to determine similar figures and find unknown measures. (DOK 2)	<p>Student Edition: 189-193, 194-197, 198-203, 204-209, 212-217, 221, 267-269, 270-275, 410-411, 571 #50, 635 #4, 649 #54, 701-702, 736, 740, 743 <i>Chapter 9 Investigation</i> 410-411</p> <p>Teacher Wraparound Edition: 5MC 194, 198; ICE 189-191, 195, 199-200, 205-207, 212-215</p>
MEASUREMENT		
4.	Demonstrate and apply various formulas in problem-solving situations.	
a.	Solve real-world problems involving measurements (i.e., circumference, perimeter, area, volume, distance, temperature, etc.). (DOK 2)	<p>Student Edition: 18 #26, 21 Ex 5, 164 #48, 177 Ex 3, 197, 393 #43, 397 #62, 398 #65, 399, 414, 415, 740, 744, 749 <i>Hands-On Algebra</i> 25</p> <p>Teacher Wraparound Edition: 5MC 24, 198; HOA 25; ICE 21</p>
b.	Explain and apply the appropriate formula to determine length, midpoint, and slope of a segment in a coordinate plane (i.e., distance formula, Pythagorean Theorem). (DOK 2)	<p>Student Edition: 284-285, 322-327, 372-373, 463 #51, 606-611, 612-613, 619 #43, 623, 643 #73, 705, 720, 730 <i>Chapter 8 Investigation</i> 372-373 <i>Chapter 14 Investigation</i> 612-613 <i>Hands-On Algebra</i> 606</p> <p>Teacher Wraparound Edition: 5MC 290, 614, 638 #2; EC 611; HOA 607; ICE 285-286, 323, 607-608; ML 612; OEA 611; RA 609; TT 613</p>
DATA ANALYSIS		
5.	Interpret data.	
a.	Construct graphs, make predictions, and draw conclusions from tables, line graphs, and scatter plots. (DOK 3)	<p>Student Edition: 32-37, 38-43, 46, 47, 57, 90-91, 104-109, 116, 145 #57, 175, 184-185, 200-201, 203 #43, 208 #27, 210-211, 215 Ex 5, 218, 749 <i>Chapter 5 Investigation</i> 210-211 <i>Math In The Workplace</i> 218</p> <p>Teacher Wraparound Edition: 5MC 38, 52; ICE 33-34, 39-41, 105, 200</p>

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b.	Use a given mean, mode, median, and range to summarize and compare data sets including investigation of the different effects that change in data have on these measures of central tendency, and select the appropriate measures of central tendency for a given purpose. (DOK 2)	<p>Student Edition: 104-109, 133, 135 #13, 158, 184-185, 210-211, 697, 736 #14 <i>Graphing Calculator Exploration</i> 105 <i>Investigation</i> 210-211</p> <p>Teacher Wraparound Edition: 5MC 112; EA 107; EC 109; ICE 105-106; ML 104; OEA 109; RA 107; TT 105</p>
c.	Calculate basic probability of experiments and simulations to make and test conjectures about results. (DOK 3)	<p>Student Edition: 219-223, 224-229, 232, 233, 243 #28, 280-281, 315, 327, 406-407 Ex 5, 467 #35, 539 #42, 649 #43, 702-703, 726 <i>Hands-On Algebra</i> 220, 224</p> <p>Teacher Wraparound Edition: 5MC 154, 224; EC 151, 229; ICE 147-148, 220-221, 225-227</p>