

GLENCOE CORRELATION
ALGEBRA: CONCEPTS AND APPLICATIONS VOLUME 1 and VOLUME 2
OKLAHOMA
Priority Academic Student Skills
Mathematics Content Standards
Algebra 1

CONTENT STANDARDS	PAGE REFERENCES	
	VOLUME 1	VOLUME 2
Standard 1: Number Sense and Algebraic Operations - The student will use expressions and equations to model number relationships.		
1. Translate word phrases and sentences into expressions and equations and vice versa.	SE: 4-7, 11-13, 21, 23, 27, 164 TWE: 5MC 8 A 7 EA 21 IE 5-6	SE: 504-508, 523 #32-#34, 533 #33-#35 Review B4, B5 #9, B7 #9
2. Expressions		
a. Use the laws of exponents to perform operations on expressions with integer exponents.	SE: 336-340, 341-345, 347-351, 352-356 Test 377 TWE: 5MC 347, 352 EC 351 IE 342-343	SE: 336-340, 341-345, 347-351, 352-356, 394-398, 399-404, 405-409, 425 #58- #66, 433 #54, 467 #33-#34, 518 #43 Test 377 Hands-On Algebra 400 TWE: 5MC 347, 352 EC 351 IE 342-343
b. Simplify and evaluate linear, absolute value, rational and radical expressions.	SE: 15-17, 19-22, 55-57, 67-69, 121, 123-126, 142-144, 171-174, 358	SE: 607-609, 614-619, 620-623, 629 #35- #40, 638-643, 644-649, 656-661, 662- 667 Graphing Calculator Exploration 638- 639
c. Simplify polynomials by adding, subtracting or multiplying.	See Volume 2.	SE: 388-393, 394-398, 399-404, 405-409 TWE: 5MC 394, 405 A 393 IE 389-391, 395-396, 406-407

CONTENT STANDARDS	PAGE REFERENCES	
	VOLUME 1	VOLUME 2
Standard 2: Relations and Functions - The student will use relations and functions to model number relationships.		
1. Relations and Functions		
a. Distinguish between linear and nonlinear data.	SE: 250-255, 273 #3, 289 <i>Study Guide and Assessment 277</i> TWE: 5MC 256 IE 251-253	SE: 458-463, 489-493 <i>Review B45</i>
b. Distinguish between relations and functions.	SE: 256-261, 275, 289 <i>Investigation 263</i> <i>Study Guide and Assessment 277</i> TWE: 5MC 264 A 261 IE 257	SE: 393 #52, 425 #68 <i>Review B44</i>
c. Identify dependent and independent variables, domain and range.	SE: 238-243, 245-249, 255, 264-269 TWE: 5MC 284 EC 243 IE 239-240	SE: 371 #47, 459, 537 ex 3 <i>Review B43</i>
d. Evaluate a function using tables, equations or graphs.	SE: 244-249, 250-254, 256-259 TWE: A 255, 261 EC 255	SE: 458-463, 464-467, 468-471 TWE: FC 462
2. Recognize the parent graph of the functions $y = k$, $y = x$, $y = x $, and predict the effects of transformations on the parent graph (e.g., $y = x + 2$, change slope, change intercepts, change slope and intercept).	SE: 310-315, 316-321, 327 #42-#44 <i>Graphing Calculator Exploration 317</i> TWE: EC 321 IE 311-313, 317 IS 320 RA 318	SE: 449 #62, 557 #2 <i>Review B55</i>
3. Calculate the slope of a line using a graph, an equation, two points or a set of data points.	SE: 284-289, 290-295 TWE: 5MC 290 EC 289 IE 285, 291 RA 286	SE: 340 #46-#48, 351 #56, 365 #47-#49, 387 #69, 439 #61, 493 #32, 571 #49 <i>Review B50</i>

CONTENT STANDARDS	PAGE REFERENCES	
	VOLUME 1	VOLUME 2
4. Develop the equation of a line and graph linear relationships given the following:		
a. slope and y-intercept	SE: 296-301, 307, 313, 321 <i>Study Guide and Assessment 329</i> TWE: 5MC 302 EC 301 IE 297 RA 299	SE: 340 #46-#48, 345 #54, 404 #62-#64 <i>Review B52</i>
b. slope and one point on the line	SE: 290-295, 322-327 <i>Study Guide and Assessment 329-330</i> <i>Test 331</i> TWE: 5MC 296, 322 EC 295 IE 291, 323	SE: 340 #45, 345 #54, 365 #47-#49, 371 #46, 493 #30-#31 <i>Review B51, B52</i>
c. two points on the line	SE: 285, 291-295 TWE: 5MC 290, 296 IE 292	SE: 439 #61, 493 #32, 571 #49 <i>Review B51, B52</i>
d. x-intercept and y-intercept	SE: 296-301, 318, 345 <i>Study Guide and Assessment 329</i> TWE: IE 298	SE: 404 #62-#64 <i>Review B52, B54</i>
e. a set of data points.	SE: 303-307 <i>Investigation 308-309</i> <i>Study Guide and Assessment 329</i> TWE: IE 304	SE: 439 #61, 493 #32 <i>Review B53, B54</i>
5. Slope Interpretation		
a. Use the slope to differentiate between lines that are parallel, perpendicular, horizontal, or vertical.	SE: 287, 288, 294, 297, 316, 318, 320, 322-327	SE: 345 #54, 508 #50, 550-553, 554-559, 565 #34 <i>Review B56</i>
b. Interpret the slope and intercepts within the context of everyday life (e.g., telephone charges based on base rate [y-intercept] plus rate per minute [slope]).	SE: 284, 288-289, 294-295, 299, 311, 314-315 TWE: EC 289	SE: 493 #32

CONTENT STANDARDS	PAGE REFERENCES	
	VOLUME 1	VOLUME 2
6. Linear Equations and Inequalities		
a. Solve linear equations by graphing or using properties of equality.	SE: 117-119, 122, 128, 172-173, 188-193, 200, 206-207	SE: 484-485, 575 <i>Hands-On Algebra</i> 560
b. Solve linear inequalities by graphing or using properties of inequalities.	See <i>Volume 2</i> .	SE: 504-508, 509-513, 514-517, 519-523, 524-529, 530-533 TWE: IE 510, 520, 525, 536-537
c. Match appropriate equations or inequalities (with 1 or 2 variables) to a graph, table, or situation and vice versa.	See <i>Volume 2</i> .	SE: 505-508, 510, 524-528, 530-533 <i>Graphing Calculator Exploration</i> 521 Quiz 518 TWE: 5MC 509 IE 505, 531
7. Solve a system of linear equations by graphing, substitution or elimination.	See <i>Volume 2</i> .	SE: 550-553, 554-559, 560-565, 566-571 TWE: 5MC 554, 560 IE 551, 555, 557
8. Problem Solving		
a. Use the formulas from measurable attributes of geometric models (perimeter, circumference, area and volume), science, and statistics to solve problems within an algebraic context.	SE: 109, 164, 169, 247 <i>Graphing Calculator Exploration</i> 338	SE: 391, 449, 477, 480, 659
b. Solve two-step and three-step problems using concepts such as rules of exponents, probability, rate, distance, ratio and proportion, measures of central tendency and percent.	SE: 195, 198-199, 204-205, 213, 221, 265, 271, 338, 343-344, 348, 354	SE: 341-345, 366-371, 474-477, 478-482, 483-487, 519-523, 524-529 <i>Investigation</i> 372-373, 674-675 <i>Review</i> B37, B39

CONTENT STANDARDS	PAGE REFERENCES	
	VOLUME 1	VOLUME 2
Standard 3: Data Analysis and Statistics - The student will use data analysis and statistics to formulate and justify predictions from a set of data.		
1. Data Analysis		
a. Translate from one representation of data to another and understand the data can be represented using a variety of tables, graphs, or symbols and that different modes of representation often convey different messages.	SE: 32-37, 38-43, 107-109, 198 <i>Investigation 211</i> TWE: 5MC 38 EC 43 IE 33-34, 39-41, 105-106	SE: 458-463, 468-473, 489-493 <i>Graphing Calculator Exploration 471, 491</i> <i>Review B9, B10, B21, B45</i>
b. Make valid inferences, predictions, and/or arguments based on data from graphs, tables, and charts.	SE: 38, 42, 302-303 <i>Investigation 30-31, 110-111, 210-211</i> TWE: ML 30	SE: 494-495
2. Collect data involving two variables and display on a scatter plot; interpret results using a linear model/equation and identify whether the model/equation is a line of best fit for the data (e.g., given a scatter plot and several linear equations, which one is the best fit?).	SE: 302-307 <i>Investigation 308-309</i> TWE: A 307 EC 307 IE 303-304 ML 303	SE: <i>Graphing Calculator Exploration 491</i>

Codes Used for TWE Pages

5MC 5-Minute Check
A Assess
EA Error Analysis
EC Extra Credit
FC From the Classroom of . . .

IE In-Class Examples
IS Inclusion Strategies
ML Motivating the Lesson
RA Reteaching Activity