

GLENCOE CORRELATION
ALGEBRA: CONCEPTS AND APPLICATIONS © 2004
OKLAHOMA
Priority Academic Student Skills
Mathematics Content Standards
Algebra 1

CONTENT STANDARDS	PAGE REFERENCES
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, 504-508, 523 #32-#34, 533 #33-#35 <i>Review B4, B5 #9, B7 #9</i> TWE: 5MC 8 A 7 EA 21 IE 5-6
2. Expressions	
a. 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, 607-609, 614-619, 620-623, 629 #35-#40, 638-643, 644-649, 656-661, 662-667 <i>Graphing Calculator Exploration 638-639</i>
b. Simplify polynomials by adding, subtracting or multiplying.	SE: 388-393, 394-398, 399-404, 405-409 TWE: 5MC 394, 405 A 393 IE 389-391, 395-396, 406-407
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, 458-463, 489-493 <i>Review B45</i> <i>Study Guide and Assessment 277</i> TWE: 5MC 256 IE 251-253
b. Distinguish between relations and functions.	SE: 256-261, 275, 289, 393 #52, 425 #68 <i>Review B44</i> <i>Investigation 263</i> <i>Study Guide and Assessment 277</i> TWE: 5MC 264 A 261 IE 257

CONTENT STANDARDS	PAGE REFERENCES
c. Identify dependent and independent variables, domain and range.	SE: 238-243, 245-249, 255, 264-269, 371 #47, 459, 537 ex 3 <i>Review B43</i> TWE: 5MC 284 EC 243 IE 239-240
d. Evaluate a function using tables, equations or graphs.	SE: 244-249, 250-254, 256-259, 458-463, 464-467, 468-471 TWE: A 255, 261 EC 255 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, 449 #62, 557 #2 <i>Review B55</i> <i>Graphing Calculator Exploration 317</i> TWE: EC 321 IE 311-313, 317 IS 320 RA 318
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, 340 #46-#48, 351 #56, 365 #47-#49, 387 #69, 439 #61, 493 #32, 571 #49 <i>Review B50</i> TWE: 5MC 290 EC 289 IE 285, 291 RA 286
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, 340 #46-#48, 345 #54, 404 #62-#64 <i>Review B52</i> <i>Study Guide and Assessment 329</i> TWE: 5MC 302 EC 301 IE 297 RA 299
b. slope and one point on the line	SE: 290-295, 322-327, 340 #45, 345 #54, 365 #47-#49, 371 #46, 493 #30-#31 <i>Review B51, B52</i> <i>Study Guide and Assessment 329-330</i> <i>Test 331</i> TWE: 5MC 296, 322 EC 295 IE 291, 323
c. two points on the line	SE: 285, 291-295, 439 #61, 493 #32, 571 #49 <i>Review B51, B52</i> TWE: 5MC 290, 296 IE 292

CONTENT STANDARDS	PAGE REFERENCES
d. x-intercept and y-intercept	SE: 296-301, 318, 345, 404 #62-#64 <i>Review B52, B54</i> <i>Study Guide and Assessment 329</i> TWE: IE 298
e. a set of data points.	SE: 303-307, 439 #61, 493 #32 <i>Review B53, B54</i> <i>Investigation 308-309</i> <i>Study Guide and Assessment 329</i> TWE: IE 304
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, 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, 493 #32 TWE: EC 289
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, 484-485, 575 <i>Hands-On Algebra 560</i>
b. Solve linear inequalities by graphing or using properties of inequalities.	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.	SE: 505-508, 510, 524-528, 530-533 <i>Graphing Calculator Exploration 521</i> <i>Quiz 518</i> TWE: 5MC 509 IE 505, 531
7. Solve a system of linear equations by graphing, substitution or elimination.	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, 391, 449, 477, 480, 659 <i>Graphing Calculator Exploration 338</i>
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, 341-345, 348, 354, 366-371, 474-477, 478-482, 483-487, 519-523, 524-529 <i>Investigation 372-373, 674-675</i> <i>Review B37, B39</i>
9. Nonlinear Functions	
a. Match exponential and quadratic functions to a table, graph or situation and vice versa.	SE: 458-461, 464-465, 489-491, 494-495 TWE: IE 459, IS 462, RA 465, EA & RA 492, EC 493
b. Solve quadratic equations by graphing, factoring, or using the quadratic formula.	SE: 468-471, 474-476, 483-485 TWE: ML 468, RA 471, EC 473, RA 475, EA 476, EC 487

CONTENT STANDARDS	PAGE REFERENCES
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, 458-463, 468-473, 489-493 <i>Graphing Calculator Exploration</i> 471, 491 <i>Review</i> B9, B10, B21, B45 <i>Investigation</i> 211 TWE: 5MC 38 EC 43 IE 33-34, 39-41, 105-106
b. Make valid inferences, predictions, and/or arguments based on data from graphs, tables, and charts.	SE: 38, 42, 302-303 <i>Investigation</i> 30-31, 110-111, 210-211, 494-495 TWE: ML 30
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</i> 308-309 <i>Graphing Calculator Exploration</i> 491 TWE: A 307 EC 307 IE 303-304 ML 303

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 Example
IS	Inclusion Strategies
ML	Motivating the Lesson
RA	Reteaching Activity