

GLENCOE CORRELATION
ALGEBRA 2
OKLAHOMA
Priority Academic Student Skills
Mathematics Content Standards
Algebra 2

CONTENT STANDARDS		PAGE REFERENCES
Standard 1: Number Systems and Algebraic Operations—The student will perform operations with real numbers, complex numbers and matrices.		
1.1	Define and perform operations on real and complex numbers.	SE: 6-10, 11-18, 20-27, 28-32, 270-275
1.2	Convert expressions from radical notations and vice versa.	SE: 250-256, 257-262
1.3.a	Add, subtract, and multiply matrices to solve problems.	SE: 160-166, 167-174, 175-181, 195-201
1.3.b	Find the inverse and determinant of a matrix to solve problems.	SE: 182-188, 195-201
1.3.c	Use matrices to solve systems of equations.	SE: 189-194, 202-207, 208
Standard 2: Relations and Functions—The student will use functions and relations to solve problems.		
2.1	Recognize the parent graph of the functions $y = x^2$ and predict the effects of transformations on the parent graph (e.g., $y = x^2 + 3$ shifts the graph up 3, $y = 3x^2$ creates vertical stretching by a factor of 3).	SE: 320-321, 322-328
2.2	Solve, graph and analyze systems of linear equations and inequalities.	SE: 110-115, 116-122, 123-127, 128, 129-135, 136-137, 138-144
2.3	Solve quadratic equations by graphing, factoring, completing the square and quadratic formula.	SE: 294-299, 301-305, 306-312, 313-319
2.4	Compare the relationship between the x-intercepts (zeros) of a quadratic function and the roots of a quadratic equation to solve problems.	SE: 294-299, 301-305, 306-312, 313-319
2.5	Interpret the maximum and minimum value and the y-intercept of a quadratic function.	SE: 286-293, 322-328
2.6	Identify, graph, and write the equations of the conic sections.	SE: 419-425, 426-431, 432, 433-440, 441-448, 449-452
2.7	Define and distinguish between relations and functions.	SE: 56-62, 63-67, 390-394
2.8	Use functional notation and specify domain and range.	SE: 56-62, 63-67, 89-95, 383-389, 390-394

CONTENT STANDARDS		PAGE REFERENCES
2.9	Find and graph the inverse of a function.	SE: 390-394, 531-538
2.10.a	Interpret and graph exponential and logarithmic functions.	SE: 522, 523-530, 531-538, 539-540, 552-553
2.10.b	Apply the inverse relationship between exponential and logarithmic functions.	SE: 531-538, 547-551, 554-559
2.10.c	Use exponential and logarithmic functions to solve problems (e.g., compound interest, exponential growth or exponential decay).	SE: 523-530, 531-538, 541-546, 547-551, 554-559, 560-565
2.11	Solve multistep problems using concepts such as rate, distance, ratio and proportion, average, and percent.	SE: 63-67, 68-74, 75-80, 412-416, 485-490, 492-498, 505-511, 531-538, 541-546, 578-582, 583-587, 588-592, 594-598
2.12.a	Use synthetic division to find the solutions of a polynomial.	SE: 233-238, 365-370
2.12.b	Use factoring to find the solutions of a polynomial.	SE: 239-244, 301-305, 360-364
2.12.c	Graph a polynomial and identify the x - and y -intercepts, relative maximums and relative minimums.	SE: 63-67, 286-293, 294-299, 301-305, 306-312, 313-319, 322-328, 353-358
2.13.a	Simplify rational expressions.	SE: 239-244, 472-478, 479-484
2.13.b	Solve rational equations.	SE: 505-511, 512
2.13.c	Graph rational expressions and identify x - and y -intercepts, horizontal asymptotes and vertical asymptotes.	SE: 485-490, 491, 512
Standard 3: Data Analysis and Statistics—The student will use data analysis and statistics to formulate and justify predictions from a set of data.		
3.1	Collect data involving two variables and display on a scatter plot, interpret results using a linear, exponential or quadratics model/equation and identify whether the model/equation is a curve of best fit for the data.	SE: 81-86, 87-88, 300, 359, 539-540
3.2	Analyze and synthesize data using measures of central tendency and standard deviation.	SE: 664-670, 671-675, 681
3.3	Identify how given outliers affect representations of data (e.g., a regression line may be strongly affected by a few aberrant points while the same aberrant points might indicate a mistake on a scatter plot).	SE: 664-670, 671-675, 682-685
3.4	Differentiate between arithmetic and geometric sequences and series.	SE: 578-582, 583-587, 588-592, 593, 594-598, 599-604