

GLENCOE CORRELATION
ALGEBRA 1
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: 6-10, 120-126, 240-245, 280-285, 286-291
2. Expressions	
a. Simplify and evaluate linear, absolute value, rational and radical expressions.	SE: 6-10, 11-15, 16-20, 103-109, 166-170, 345-351, 586-592, 593-597, 648-653, 654, 655-659, 660-664, 666-671, 672-677, 678-683, 684-689
b. Simplify polynomials by adding, subtracting or multiplying.	SE: 410-415, 432-436, 437-438, 439-443, 444-449, 450-451, 452-457, 458-463
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: 218-223, 226-231, 298-305, 306-307
b. Distinguish between relations and functions.	SE: 226-231
c. Identify dependent and independent variables, domain and range.	SE: 43-48, 205-211, 212-217
d. Evaluate a function using tables, equations, or graphs.	SE: 218-223, 224-225, 226-231
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: 271, 272-277, 278-279, 280-285, 286-291, 292-297, 345-351
3. Calculate the slope of a line using a graph, an equation, two points or a set of data points.	SE: 256-262, 264-270, 271, 272-277, 278-279, 280-285, 286-291, 292-297, 298-305, 306-307
4. Develop the equation of a line and graph linear relationships given the following:	
a. slope and y-intercept	SE: 271, 272-277, 280-285, 292-297
b. slope and one point on the line	SE: 272-277, 280-285, 286-291, 292-297
c. two points on the line	SE: 272-277, 280-285, 286-291
d. x-intercept and y-intercept	SE: 218-223, 298-305
e. a set of data points	SE: 298-305, 306-307

CONTENT STANDARDS	PAGE REFERENCES
5. Slope Interpretation	
a. Use the slope to differentiate between lines that are parallel, perpendicular, horizontal, or vertical.	SE: 256-262, 264-270, 292-297
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: 264-270, 272-277, 280-285
6. Linear Equations and Inequalities	
a. Solve linear equations by graphing or using properties of equality.	SE: 127, 128-134, 135-140, 141, 142-148, 149-154, 166-170, 218-223, 224-225, 271, 272-277, 278-279
b. Solve linear inequalities by graphing or using properties of inequalities.	SE: 318-323, 324, 325-331, 332-337, 352-357, 358
c. Match appropriate equations or inequalities (with 1 or 2 variables) to a graph, table, or situation and vice versa.	SE: 127, 128-134, 135-140, 141, 142-148, 149-154, 166-170, 218-223, 224-225, 271, 272-277, 278-279
7. Solve a system of linear equations by graphing, substitution or elimination.	SE: 368, 369-374, 375, 376-381, 382-386, 387-392
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: 155-159, 160-164, 166-170, 171-177, 178, 605-610, 611-615
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: 155-159, 160-164, 166-170, 171-177, 178, 554-560, 561-565, 567-572, 754-758, 760-767, 769-776, 777-781, 782-788
9. Nonlinear Functions	
a. Match exponential and quadratic functions to a table, graph or situation and vice versa.	SE: 527, 531-532, 545, 554-557, 561-563, 566
b. Solve quadratic equations by graphing, factoring, or using the quadratic formula.	SE: 483, 491-492, 497-498, 503-504, 510-512, 533-535, 546-549
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: 50-55, 56, 88-94, 171-177, 178, 298-305, 306-307, 708-713, 715-721, 722-728, 729-730, 731-736, 737-742, 743-744

CONTENT STANDARDS	PAGE REFERENCES
b. Make valid inferences, predictions, and/or arguments based on data from graphs, tables and charts.	SE: 50-55, 56, 88-94, 171-177, 178, 298-305, 306-307, 708-713, 715-721, 722-728, 729-730, 731-736, 737-742, 743-744
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: 298-305, 306-307