

ALGEBRA I
SEMESTER 1 ASSESSMENT ITEM SPECIFICATION SHEET & KEY



Free Response						
#	Objective	Syllabus Objective		NV State Standard		
1	<ul style="list-style-type: none"> ♦ Identify and apply real number properties using variables, including distributive, commutative, associative, identity, inverse, and absolute value to expressions or equations. ♦ Solve linear equations and represent the solution graphically and algebraically. 	2.4 4.1		1.12.8 2.8.5		
2	<ul style="list-style-type: none"> ♦ Determine if a given relation is a function. ♦ Describe and model functions using an input-output table, mapping diagram, and writing a function rule. ♦ Evaluate functions using function notation for given values of the variable. ♦ Translate among verbal descriptions, graphic, tabular, and algebraic representations of a function. 	3.1 3.2 3.3 3.4		2.8.4 2.8.4 2.8.4 2.8.4		
3	<ul style="list-style-type: none"> ♦ Write the equation of a linear function given two points, a point and the slope, table of values, or a graphical representation. 	5.6		2.8.4		
Multiple Choice						
#	Objective	Syllabus Objective	NV State Standard	08/09 Practice Key	08/09 Final Key*	09/10 Final Key
1	Perform addition, subtraction, and scalar multiplication on matrices.	1.2	1.7.7 1.12.7	A	B	
2	Perform addition, subtraction, and scalar multiplication on matrices.	1.2	1.7.7 1.12.7	B	A	
3	Collect, organize, display, and analyze data using graphical representations including box-and-whisker plots.	1.3	5.8.1	C	C	
4	Determine the probability of an event with and without replacement using sample spaces.	1.4	5.12.5	D	D	
5	Determine the probability of an event with and without replacement using sample spaces.	1.4	5.12.5	D	B	
6	Use order of operations to evaluate expressions.	2.1	1.8.7	B	A	
7	Use order of operations to evaluate expressions.	2.1	1.8.7	B	B	
8	Evaluate formulas and algebraic expressions using rational numbers (with and without technology).	2.2	2.8.2	C	C	
9	Use algebraic expressions to identify and describe the nth term of a sequence.	2.3	2.12.1	D	C	
10	Identify and apply real number properties using variables, including distributive, commutative, associative, identity, inverse, and absolute value to expressions or equations.	2.4	1.12.8	C	D	
11	Students will simplify algebraic expressions by adding and subtracting like terms.	2.5	2.12.3	A	C	
12	Students will simplify algebraic expressions by adding and subtracting like terms.	2.5	2.12.3	B	C	
13	Determine if a given relation is a function.	3.1	2.8.4	D	A	
14	Determine if a given relation is a function.	3.1	2.8.4	A	B	

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15	Describe and model functions using an input-output table, mapping diagram, and writing a function rule.	3.2	2.8.4	C	D	
16	Evaluate functions using function notation for given values of the variable.	3.3	2.8.4	B	B	
17	Translate among verbal descriptions, graphic, tabular, and algebraic representations of a function.	3.4	2.8.4	B	A	
18	Translate among verbal descriptions, graphic, tabular, and algebraic representations of a function.	3.4	2.8.4	C	C	
19	Determine and differentiate between the domain and range of functions.	3.5	2.12.4	D	A	
20	Solve linear equations and represent the solution graphically and algebraically.	4.1	2.8.5	A	A	
21	Solve linear equations and represent the solution graphically and algebraically.	4.1	2.8.5	B	C	
22	Solve linear equations and represent the solution graphically and algebraically.	4.1	2.8.5	C	A	
23	Solve linear equations and represent the solution graphically and algebraically.	4.1	2.8.5	A	A	
24	Isolate any variable in given equations, proportions, and formulas to use in mathematical and practical situations.	4.2	2.12.2	D	D	
25	Solve practical problems involving linear equations with a variety of methods, including discrete methods (with and without technology).	4.3	2.12.2 2.12.6	A	A	
26	Solve practical problems involving linear equations with a variety of methods, including discrete methods (with and without technology).	4.3	2.12.2 2.12.6	A	B	
27	Solve linear inequalities and represent the solution graphically on a number line and algebraically.	4.4	2.8.5	B	A	
28	Solve linear inequalities and represent the solution graphically on a number line and algebraically.	4.4	2.8.5	D	D	
29	Solve absolute value equations both algebraically and graphically.	4.5	2.12.4	B	C	
30	Solve compound inequalities both algebraically and graphically.	4.6	2.12.4	C	B	
31	Solve compound inequalities both algebraically and graphically.	4.6	2.12.4	D	B	
32	Solve absolute value inequalities both algebraically and graphically.	4.7	2.12.4	D	A	
33	Compare characteristics of a given family of linear functions.	5.1	4.12.5	B	C	
34	Compare characteristics of a given family of linear functions.	5.1	4.12.5	A	B	
35	Determine the slope of lines using coordinate geometry and algebraic techniques.	5.2	4.12.5	D	A	

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#	Objective	Syllabus Objective	NV State Standard	08/09 Practice Key	08/09 Final Key*	09/10 Final Key
36	Determine the slope of lines using coordinate geometry and algebraic techniques.	5.2	4.12.5	A	B	
37	Determine the slope of lines using coordinate geometry and algebraic techniques.	5.2	4.12.5	A	D	
38	Determine the x- and y-Intercepts of a line.	5.3	4.12.5	C	B	
39	Graph linear equations and find possible solutions to those equations using coordinate geometry.	5.4	4.12.5	A	D	
40	Graph linear equations and find possible solutions to those equations using coordinate geometry.	5.4	4.12.5	D	A	
41	Translate among the different forms of linear equations including slope-intercept, point-slope, and standard form.	5.5	2.8.4	C	B	
42	Translate among the different forms of linear equations including slope-intercept, point-slope, and standard form.	5.5	2.8.4	A	C	
43	Write the equation of a linear function given two points, a point and the slope, table of values, or a graphical representation.	5.6	2.8.4	C	B	
44	Write the equation of a linear function given two points, a point and the slope, table of values, or a graphical representation.	5.6	2.8.4	A	D	
45	Identify parallel, perpendicular, and intersecting lines by slope.	5.7	4.12.5	B	C	
46	Identify parallel, perpendicular, and intersecting lines by slope.	5.6 5.7	2.8.4 4.12.5	B	A	
47	Design, construct and analyze scatter plots to make predictions.	5.8	5.12.6	C	C	
48	Be able to use a scatterplot to find a linear equation that approximates a set of data points.	5.9	5.12.6	A	D	
49	Graph linear inequalities in two-variables and find possible solution sets to those inequalities using coordinate geometry.	5.10	2.12.4	D	B	
50	Graph absolute value equations and find possible solutions to those equations using coordinate geometry.	5.11	2.12.4	C	B	