

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	B	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	