

McFarland Unified School District

Assessment Blueprint

Algebra I

Benchmark 1			
	Standard	# Items	Specific Focus
1	AI 3.0 (1)	2	Students solve equations and inequalities involving absolute values.
2	AI 4.0 (3)	4	Students simplify expressions before solving linear equations and inequalities in one variable, such as $3(2x-5) + 4(x-2) = 12$.
3	AI 5.0 (6)	8	Students solve multistep problems, including word problems, involving linear equations and linear inequalities in one variable and provide justification for each step.
4	AI 15.0 (4)	6	Students apply algebraic techniques to solve rate problems, work problems, and percent mixture problems.

Benchmark 2			
	Standard	# Items	Specific Focus
1	AI 6.0 (4)	6	Students graph a linear equation and compute the x- and y-intercepts (e.g., graph $2x + 6y = 4$). They are also able to sketch the region defined by linear inequality (e.g., they sketch the region defined by $2x + 6y < 4$).
2	AI 7.0 (4)	6	Students verify that a point lies on a line, given an equation of the line. Students are able to derive linear equations by using the point-slope formula.
3	AI 8.0 (1)	3	Students understand the concepts of parallel lines and perpendicular lines and how those slopes are related. Students are able to find the equation of a line perpendicular to a given line that passes through a given point.
4	AI 9.0 (5)	8	Students solve a system of two linear equations in two variables algebraically and are able to interpret the answer graphically. Students are able to solve a system of two linear inequalities in two variables and to sketch the solution sets.
5	AI 16.0 (1/2)	2	Students understand the concepts of a relation and a function, determine whether a given relation defines a function, and give pertinent information about given relations and functions.

Benchmark 3			
	Standard	# Items	Specific Focus
1	AI 10.0 (4)	5	Students add, subtract, multiply, and divide monomials and polynomials. Students solve multistep problems, including word problems, by using these techniques.
2	AI 11.0 (2)	3	Students apply basic factoring techniques to second- and simple third-degree polynomials. These techniques include finding a common factor for all terms in a polynomial, recognizing the difference of two squares, and recognizing perfect squares of binomials.
3	AI 14.0 (3)	4	Students solve a quadratic equation by factoring or completing the square.
4	AI 19.0 (2)	2	Students know the quadratic formula and are familiar with its proof by completing the square.
5	AI 20.0 (3)	4	Students use the quadratic formula to find the roots of a second-degree polynomial and to solve quadratic equations.
6	AI 21.0 (3)	4	Students graph quadratic functions and know that their roots are the x-intercepts.
7	AI 23.0 (3)	3	Students apply quadratic equations to physical problems, such as the motion of an object under the force of gravity.

Standards not assessed:
AI 24.1; 24.2; 24.3; 25.1; 25.2; 25.3

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