Unit 12 Solving Equations

Lesson Outline

BIG PICTURE

Students will:

- translate statements of mathematical relationship into equations;
- solve and verify linear equations with one variable term using a variety of strategies.

Day	Lesson Title	Math Learning Goals	Expectations
1	What Makes It True?	• Use inspection and estimation to 'guesstimate' integer solutions to equations having only two terms, one of which contains a	8m18, 8m23, 8m64
	(lesson not included)	variable. • Justify estimations of solutions to simple equations.	CGE 3c, 4f
		• Check estimation solutions by a formal verification process.	
2	A Balancing Act	• Use 'inspection' and 'guess and check' to solve equations with integer solutions having one variable term and two constant	8m18, 8m23, 8m64
	(lesson not included)	terms.	CGE 5b, 7b
		• Use a 'balance model' to solve equations with integer solutions	
		having one variable term and two constant terms. • Virtual website http://matti.usu.edu/nlvm/nav/vlibrary.html	
		Choose Index → Algebra Balance Scales → Algebra (9–12)	
4	Breaking the Code	• Find an equation expression for the general term of a given	8m18, 8m56,
	(lesson not included)	number pattern. • Determine, given the general term of a number pattern, which	8m63, 8m64
	(tesson not included)	term has a particular value by solving an equation.	CGE 3c, 4b
5, 6	Model Solutions	Solve problems having integer solutions by first algebraically	8m22, 8m59,
	<i>a</i> 1 1 1)	modelling the facts with an equation and then solving the	8m61, 8m64
	(lessons not included)	equation.	CGE 2b, 4f
7	Summative		
	Assessment		