

Foundations of Algebra

Analyze and apply expressions and equations (1.1/1.2/1.3)

CCSS	4 – Mastery	3 – Proficient	2 - Basic	1 – Below Basic	0 – No Evidence
Interpret expressions and equations (A.SSE.1*)	Can extend thinking beyond the standard, including tasks that may involve one of the following:	Interpret individual and groups of parts of an expression (such as variables, coefficients, factors, etc.) in terms of a given context	Identify groups in an expression and Interpret individual parts of an expression (such as variables, coefficients, factors, etc.) in terms of a given context	Identify individual parts of an expression (such as variables, coefficients, factors, etc.)	Little evidence of reasoning or application to solve the problem
Create expressions and equations (A.CED.1*)	<ul style="list-style-type: none"> • Designing • Connecting • Synthesizing • Applying • Justifying • Critiquing • Analyzing • Creating • Proving 	Create linear equations with one variable and use them in a contextual situation and solve problems.	Create linear equations with one variable and use them in a contextual situation	Identify linear equations with one variable to represent a contextual situation	Does not meet the criteria in a level 1

A.SSE.1* Interpret expressions that represent a quantity in terms of its context.

a. Interpret parts of an expression, such as terms, factors, and coefficients.

b. Interpret complicated expressions by viewing one or more of their parts as a single entity.

A.CED.1* Create equations and inequalities in one variable and use them to solve problems

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Solve equations and inequalities (2.1)

CCSS	4 – Mastery	3 – Proficient	2 - Basic	1 – Below Basic	0 – No Evidence
Solve equations and inequalities (A.REI.3)	Can extend thinking beyond the standard, including tasks that may involve one of the following:	Solve linear equations and inequalities with rational numbers and variables on both sides, that requires distributing and combining like terms.	Solve linear equations and inequalities with rational numbers and variables on both sides, that requires distributing or combining like terms.	Solve linear equations and inequalities with rational numbers and variables on both sides.	Little evidence of reasoning or application to solve the problem
Explain steps to solving (A.REI.1)	<ul style="list-style-type: none"> • Designing • Connecting • Synthesizing • Applying • Justifying • Critiquing • Analyzing • Creating • Proving 	Explain each step in solving an equation using properties of equality and justify the solution method	Explain each step in solving an equation using properties of equality.	Identify /match properties of equality used for each step in solving an equation.	Does not meet the criteria in a level 1
Create equations and inequalities (A.CED.1*)		Create linear equations and inequalities with one variable and use them in a contextual situation and solve problems.	Create linear equations or inequalities with one variable and use them in a contextual situation and solve problems.	Identify linear equations or inequalities with one variable to represent a contextual situation and use them to solve problems.	

A.REI.3 Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.

A.REI.1 Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.

A.CED.1* Create equations and inequalities in one variable and use them to solve problems

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Rewrite literal equations (2.2)

CCSS	4 – Mastery	3 – Proficient	2 - Basic	1 – Below Basic	0 – No Evidence
Solve and rewrite literal equations (A.REI.3, A.CED.4*)	Can extend thinking beyond the standard, including tasks that may involve one of the following: <ul style="list-style-type: none"> • Designing • Connecting • Synthesizing • Applying • Justifying • Critiquing • Analyzing • Creating • Proving 	Solve multi-step literal equations involving more than 2 variables <u>in contextual situations</u>	Solve multi-step literal equations involving <u>more than 2 variables</u>	Solve multi-step literal equations involving <u>2 variables</u>	Little evidence of reasoning or application to solve the problem Does not meet the criteria in a level 1

A.REI.3 Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.

A.CED.4* Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations.

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Solve absolute value equations and inequalities (2.3)

CCSS	4 – Mastery	3 – Proficient	2 - Basic	1 – Below Basic	0 – No Evidence
Solve absolute value equations and inequalities (A.REI.3)	Can extend thinking beyond the standard, including tasks that may involve one of the following:	Solve absolute value equations and inequalities (<u>including graph of inequality as part of solution</u>)	Solve absolute value equations <u>and</u> inequalities	Solve absolute value equations <u>or</u> inequalities	Little evidence of reasoning or application to solve the problem
Represent constraints and interpret solutions (A.CED.3*)	<ul style="list-style-type: none"> • Designing • Connecting • Synthesizing • Applying • Justifying • Critiquing • Analyzing • Creating • Proving 	Write the constraints for a contextual situation <u>Interpret solutions as viable or nonviable options</u> in context of the situation.	<u>Write</u> the constraints for a contextual situation Identify solutions <u>in context of the situation.</u>	Identify the constraints for a contextual situation Identify solutions	Does not meet the criteria in a level 1

A.REI.3 Solve linear equations and inequalities in one variable, ~~including equations with coefficients represented by letters.~~

A.CED.3* Represent constraints by equations or inequalities, ~~and by systems of equations and/or inequalities~~, and interpret solutions as viable or nonviable options in a modeling context.