RAISE For Success + Equity
Rice Algebra Initiative

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Unit 9 Student Self-Assessment

After completing Unit 9, please mark how much you agree with the following statements.

If you want to brush up on any of these skills, refer to the lesson heading above it.

I can...	I can	Almost	Not yet
Lesson 9.1: What Are Perfect Squares?			
Recognize perfect-square expressions written in different forms.			
Recognize quadratic equations that have a perfect-square expression and solve the equations.			
Lesson 9.2: Completing the Square, Part 1			
Explain what it means to "complete the square" and describe how to do it.			
Solve quadratic equations by completing the square and finding square roots.			
Lesson 9.3: Completing the Square, Part 2			
Solve by completing the square when given a quadratic equation in which the coefficient of the squared term is 1.			
Lesson 9.4: Completing the Square, Part 3			
Complete the square for quadratic expressions of the form $ax^2 + bx + c$ when a is not 1 and explain the process.			
Solve quadratic equations in which the squared term coefficient is not 1 by completing the square.			

I can...	I can	Almost	Not yet
Lesson 9.5: Quadratic Equations with Irrational Solutions			
Use the radical and "plus-minus" symbols to represent solutions to quadratic equations.			
Explain why the plus-minus symbol is used when solving quadratic equations by finding square roots.			
Lesson 9.6: The Quadratic Formula			
Use the quadratic formula to solve quadratic equations.			
Explain when some methods for solving quadratic equations can be more convenient than others.			
Lesson 9.7: Applying the Quadratic Formula			
Identify common errors when using the quadratic formula.			
Describe some ways to tell if a number is a solution to a quadratic equation.			
Lesson 9.8: Deriving the Quadratic Formula			
Explain the steps and complete some missing steps for deriving the quadratic formula.			
Explain how the quadratic formula is related to the process of completing the square for a quadratic equation $ax^2 + bx + c = 0$.			
Lesson 9.9: Writing Quadratics in Different Forms			
Identify the vertex of a quadratic function from an equation.			
Write quadratics in vertex, factored, and standard forms.			

I can...	I can	Almost	Not yet
Write quadratic functions in vertex form given a vertex and another point.			
Lesson 9.10: Rewriting Quadratic Expressions in Vertex Form			
Identify the vertex of the graph of a quadratic function when the expression that defines it is written in vertex form.			
Explain the meaning of the term "vertex form" and recognize examples of quadratic expressions written in this form.			
When given a quadratic expression in factored form, rewrite it in standard form.			
When given a quadratic expression in standard form, rewrite it in vertex form.			
Lesson 9.11: Using Quadratic Expressions in Vertex Form to Solve Problems			
Find the maximum or minimum of a function by writing the quadratic expression that defines it in vertex form.			
Explain why the vertex is a maximum or minimum when given a quadratic function in vertex form.			