## UNIT 3 • MODELING AND ANALYZING QUADRATIC FUNCTIONS

Lesson 1: Creating and Solving Quadratic Equations in One Variable

## Problem-Based Task 3.1.4: Window Installation

A construction company is installing a rectangular pane of stained glass at a local museum. The expression $54 x^{2}+69 x+20$ represents the area of the window in square inches, and the expression $6 x+5$ represents the width of the window in inches. If the window has a height of 94 inches, what are the actual width and area of the window? Recall that the area of a rectangle is equal to its width times its length (in this case, the height of the window).

SMP
1 $\sqrt{2} \checkmark$
$34 \checkmark$
56
$7 \checkmark 8$


