Unit Guide

Quadratic Functions as a Product of Linear Factors

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This unit is designed to present quadratics in a somewhat different light, in order to help students develop a deeper understanding of factoring. Traditionally, in my district, quadratics have been taught by first introducing projectile motion with quadratic equations in standard form, and using tables graphs, and the quadratic formula to solve. Then, factored form and solving by factoring is taught in a follow-up unit, but from my experience the students do not develop a deep understanding of what factored form is and how factoring can be used to solve and create graphs. So this unit reverses the traditional sequence, and builds on students' understanding of linear functions to see what happens when two linear functions are multiplied by each other. The goal is to build a deeper understanding of factoring, and how the zero product property can be used to find the zeroes and the vertex for most quadratic patterns.