Completing the Square in Quadratics

Today's Standard

HSA.REI.B4a - Use the method of completing the square to transform any quadratic equation in x into an equation of the form $(x - p)^2 = q$ that has the same solutions. Derive the quadratic formula from this form.

Cues	Notes
What is completing the square?	Completing the square is a method to transform a quadratic equation into the form $(x - p)^2 = q$.
How does completing the square transform a quadratic equation?	This transformation reveals the solutions of the equation and is used to derive the quadratic formula.
Why is completing the square important?	It is important because it provides a systematic way to solve any quadratic equation and understand the quadratic formula.
What are common misconceptions about completing the square?	Common misconceptions include thinking that completing the square changes the solutions or only works for certain equations.

Summary

Completing the square is a crucial algebraic method for solving quadratic equations and deriving the quadratic formula. It maintains the solutions of the original equation and is universally applicable.