Example 3: Add the proper constant to each binomial so that the resulting trinomial is a perfect square trinomial. Then factor the trinomial.

a. $y^2 + 2y +$ _____ b. $y^2 - y +$ _____

To Solve a Quadratic Equation by Completing the Square
1) If necessary, divide or multiply both sides of the equation so that the leading coefficient (the coefficient of x^2) is 1. 2) If necessary, isolate the constant term on one side of the equation. 3) Find the constant that completes the square of the polynomial and add this constant to both sides. Rewrite the polynomial as the square of a binomial. 4) Use the Square Root Property to find the solutions of the equation.

Example 4: Solve the quadratic equations by completing the square.