Basic Algebra Review

Simplify each expression using the FOIL Method

$(1 + x)(3 + 2x)$

$(2 + 5x)(11 + 12x)$

$(x + -3)(10x + -20)$

$(x^2 + -4)(x^2 + -4)$

$(3x + 9)(2x + 5)$

$(5 + x)(2x + -10)$

Factor each trinomial

$x^2 + 2x + 1$

$3x^2 + 7xy + 4y^2$

$m^2 + -5m + 6$

$y^2 + -10y + 25$

$4k^2 + 28k + 49$

$3 + -10r^2 + 8r^4$

Solve each equation using the quadratic equation

$10k^2 + 200k + 937.5 = 0$

$4x^2 + 8x + -77 = 0$

$16y^2 + -8y + -3 = 0$

$x^2 + -1.375x + 0.375 = 0$

$x^2 = 15 + 2x$

Solve each equation by Completing the Square

$x^2 + 5x + 6 = 0$

$x^2 + 3x + -10 = 0$

$m^2 + -4m + -21 = 0$

$2n^2 + -22n + 60 = 0$

$10t^2 = t + 2$