Math 114-Intermediate Algebra

Factoring and Quadratic Equations (11)

I. Multiplication of Polynomials

    A. (binomial)(binomial) : binomial multiplied by binomial,

use FOIL

$$(x+4)(x+3) = (x \cdot x) + (x \cdot 3) + (4 \cdot x) + (4 \cdot 3)$$

$$\textbf{F} \qquad \textbf{O} \qquad \textbf{I} \qquad \textbf{L}$$

$$= x^2 + 3x + 4x + 12 = x^2 + 7x + 12$$

    Examples:

        a. $(x+5)(x-3) =$

        b. $(2a+3)(a+5) =$

        c. $(x^2+3y)(x^2-5y) =$

        d. $(4x+1)^2 = (4x+1)(4x+1) =$

        e. $(5x+1)^2 = (5x+1)(5x+1) =$

        f. $(3y-2)^2 = (3y-2)(3y-2) =$

        g. $(2a-1)^2 = (2a-1)(2a-1) =$

        h. $(2a-1)(2a+1) =$

        i. $(3y-2)(3y+2) =$

        j. $(5x-1)(5x+1) =$