

Multiplying Two Linear Binomial Factors Using

FOIL

F irst

O utside

I nside

L ast

P. 76

Simplify

$$(3x - 1)(x + 4)$$

$$\underline{3x \cdot x} + \underline{3x \cdot 4} + \underline{-1 \cdot x} + \underline{-1 \cdot 4}$$

F_{irst} O_{utside} I_{nside} L_{ast}

$$3x^2 + 12x - x - 4$$

$3x^2 + 11x - 4$

Simplify

$$(m + 3)(m + 4)$$

$$\underline{m \cdot m + m \cdot 4 + 3 \cdot m + 3 \cdot 4}$$

$$m^2 + (-4m) + (-3m) + 12$$

$$m^2 - 7m + 12$$

Simplify

$$(4-p)(2p+7)$$

$$\begin{array}{r} 8p + 28 + -2p^2 + -p7 \\ -2p^2 + 8p - 7p + 28 \\ \hline -2p^2 + p + 28 \end{array}$$

Simplify

$$(s^3 - 1)(-s^2 + 4)$$

Homework (due 1/15)

p.76 (23 - 28)