

3.3: More Factoring

EX 1) $2x^2 + 7x - 9$

GCF: 1

$$2x^2 \cdot -9 = -18x^2$$

$$\frac{9x}{x} + \frac{-2x}{x} = 7x$$

$$y = -18/x$$

$$\begin{array}{r|l} 2x^2 + 9x & -2x - 9 \\ \hline x & x \\ \hline x(2x + 9) & -1(2x + 9) \end{array}$$

$$(2x + 9)(x - 1)$$

EX 2) $x^2 + 2x - 24$

GCF: 1

$$x^2 \cdot -24 = -24x^2$$

$$\frac{-4x}{x} + \frac{6x}{x} = 2x$$

$$y = -24/x$$

$$\begin{array}{r|l} x^2 - 4x & +6x - 24 \\ \hline x & x \\ \hline x(x - 4) & +6(x - 4) \end{array}$$

$$(x - 4)(x + 6)$$

* only works if $|x^2$ *

EX 3) $x^2 + 5x - 4$

GCF: 1

$$x^2 \cdot 4 = 4x^2$$

$$\frac{4x}{x} + \frac{-1x}{x} = 5x$$

$$\begin{array}{r|l} x^2 + 4x & +x + 4 \\ \hline x & x \\ \hline x(x + 4) & +1(x + 4) \end{array}$$

$$(x + 4)(x + 1)$$