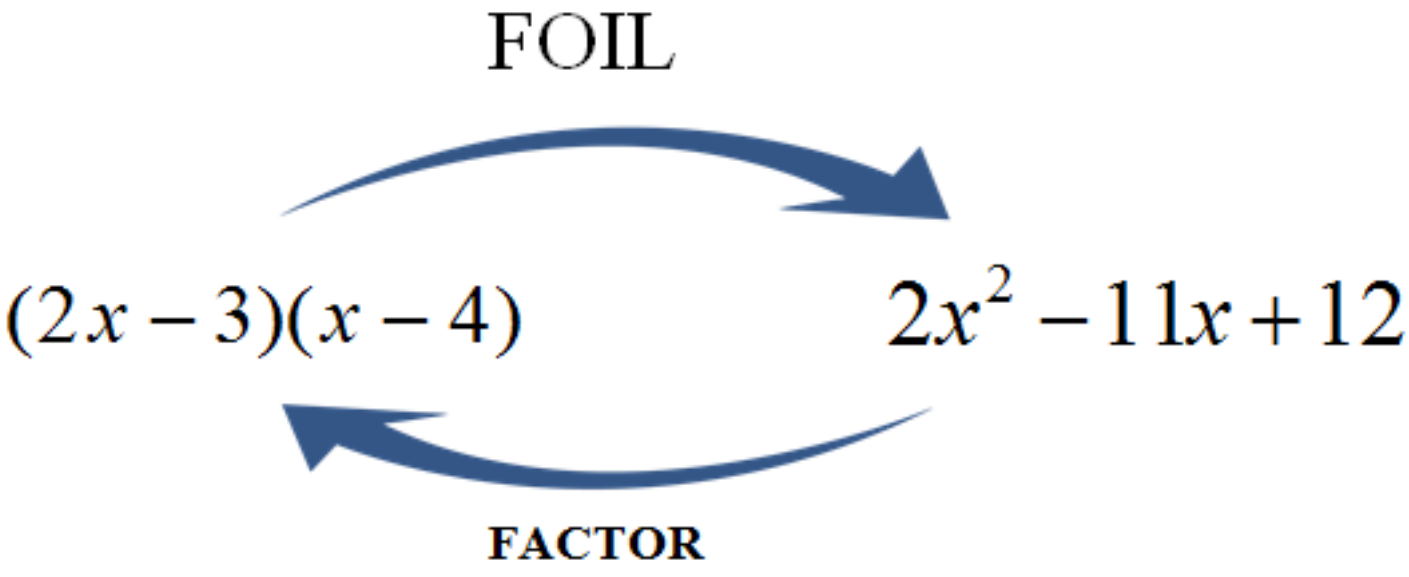
Factoring

Factoring "UN-Does" FOIL



FACTOR

$$3x^2 - 11x - 4$$

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

$$\begin{array}{r} -12x \\ +1x \\ \hline -11x \end{array}$$

FACTOR

a. $5x^2 - 33x + 18$ $(5x - 3)(x - 6)$

$-30x$
$-3x$
$-33x$

b. $2x^2 - 3x - 9$ $(2x + 3)(x - 3)$

$-6x$
$+3x$
$-3x$

c. $9x^2 - 18x - 40$ $(3x + 4)(3x - 10)$

$-30x$
$+12x$
$-18x$

ALWAYS ASK YOURSELF: "IS THERE A COMMON FACTOR?" BEFORE FACTORING.

d. $\frac{6x^2}{2} + \frac{14x}{2} + \frac{4}{2}$ GCF: 2

$2(3x^2+7x+2) = 2(3x+1)(x+2)$

$+6x$
$+1x$
$7x$

e. $\frac{12m^2}{3} + \frac{33m}{3} + \frac{18}{3}$ GCF: 3

$3(4m^2+11m+6) = 3(4m+3)(m+2)$

$+8m$
$+3m$