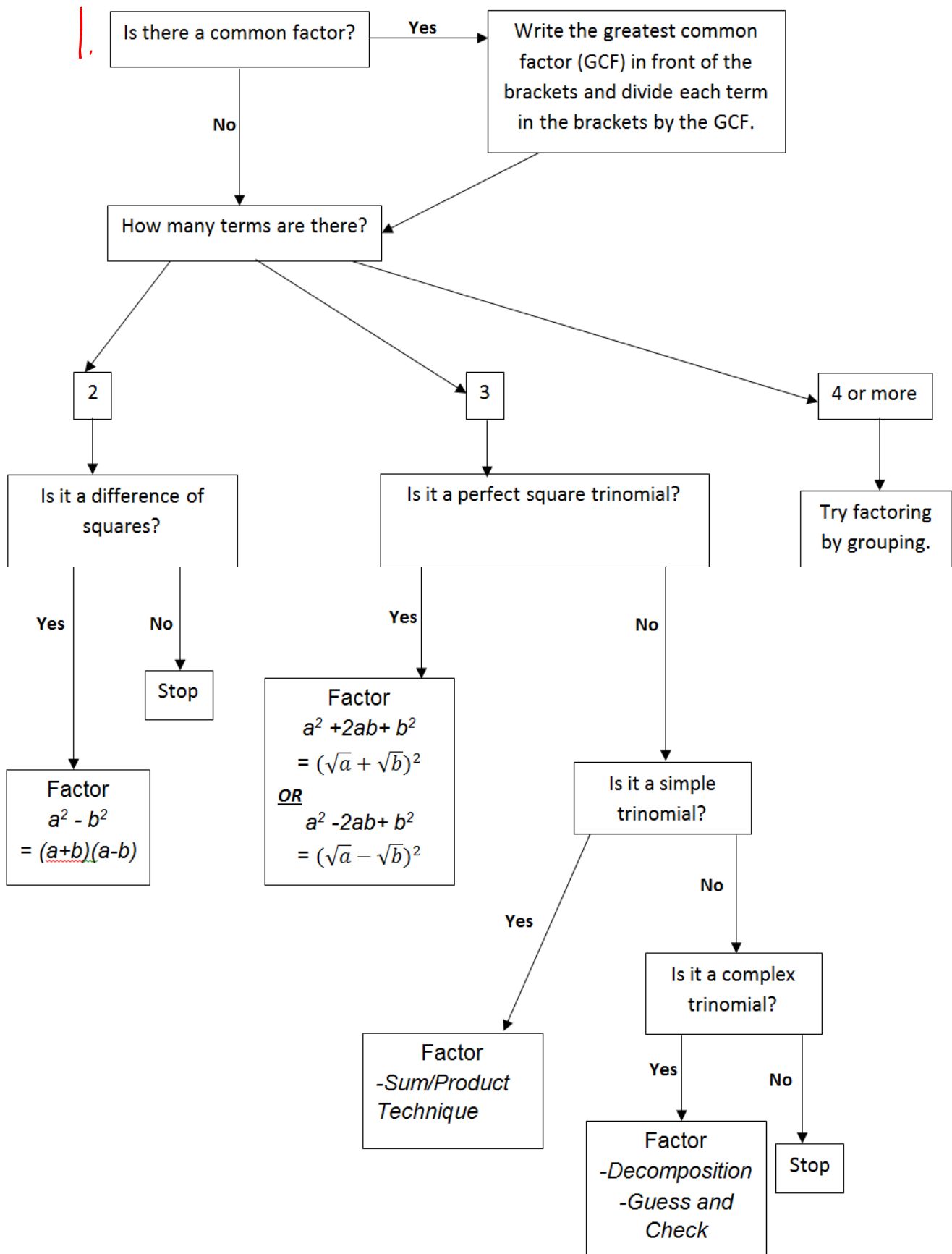


Factoring: Putting it all Together



Examples:

$3d^2 - 9d$ $= 3d(d - 3)$	$\sqrt{4x^2} = 2x \quad \sqrt{9} = 3$ $= (2x + 3)(2x - 3)$	$x^2 + 10x + 24$ $= (x + 6)(x + 4)$
---------------------------	------------------------------------------------------------	-------------------------------------

$$8x^2 + 24x + 18$$

$$2(\sqrt{4x^2} + 12x + \sqrt{9})$$

check: $(2x)(3)(2) = 12x$

$$= 2(2x+3)(2x+3)$$

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

$$4a^2 - 16b^2$$

$$= 4(\sqrt{a^2} - \sqrt{4b^2})$$

$$= 4(a+2b)(a-2b)$$

$$4a^2 + 12a - 40$$

$$= 4(a^2 + 3a - 10)$$

$$= 4(a+5)(a-2)$$

$$3n^{\overset{a}{2}} + 4n^{\overset{b}{1}} + 1^{\overset{c}{}}$$

$$a \times c = 3$$

$$= \boxed{3n^2 + 3n} + \boxed{1n + 1}$$

$$= 3n(n+1) + 1(n+1)$$

$$= (n+1)(3n+1)$$

$$2d^2 - 10d - 48$$

$$= 2(d^2 - 5d - 24)$$

$$= 2(d+3)(d-8)$$

$$48x^2 - 75y^2$$

$$= 3(\sqrt{16x^2} - \sqrt{25y^2})$$

$$= 3(4x+5y)(4x-5y)$$

Factoring FORMATIVE Quiz

Self-Evaluation	Peer-Evaluation	Teacher Evaluation
$x^2 - 5x + 6$	$2x^2 - 13x + 21$	$64p^2 - 169c^2$
$2x^2 + 10x + 12$	$4x^2 - 12x + 9$	$5x^2 - 35x + 50$

Self-Evaluation	Peer-Evaluation	Teacher Evaluation
$3t^2 + t - 4$	$3x^2 + 9x - 12$	$9a^2 - 24a + 16$
$169x^2 - y^2$	$x^2 + 2x - 3$	$a^2 + 6a + 5$
$4x^2 - 20x + 25$	$81a^2 - 121b^2$	$6a^2 + 17a + 12$

Practice: Page 236 # 4, 6-10 (you choose), 11-13