# Section 3.8 pg. 191

## Factoring Trinomials with Two Variables

1. $2a^2 - 7ab + 3b^2$

Decomposition

add ⇒ -7

mult ⇒ 6

$-6 + -1$

$(2a^2 - 6ab)(-ab + 3b^2)$

$2a(a - 3b) - b(a - 3b)$

$(2a - b)(a - 3b)$

check:

| | $2a$ | $-b$ |
|---|---|---|
| $a$ | $2a^2$ | $-ab$ |
| $-3b$ | $-6ab$ | $3b^2$ |

$2a^2 - ab - 6ab + 3b^2$

$2a^2 - 7ab + 3b^2$

2. $10c^2 - cd - 2d^2$

add $\Rightarrow -1$
mult $\Rightarrow -20$
$-5$ & $4$

$(10c^2 - 5cd)(+4cd - 2d^2)$

$5c(2c - d) + 2d(2c - d)$

$(5c + 2d)(2c - d)$

3. $3p^2 - 5pq - 2q^2$

add $\Rightarrow -5$
mult $\Rightarrow -6$
$-6$ & $+1$

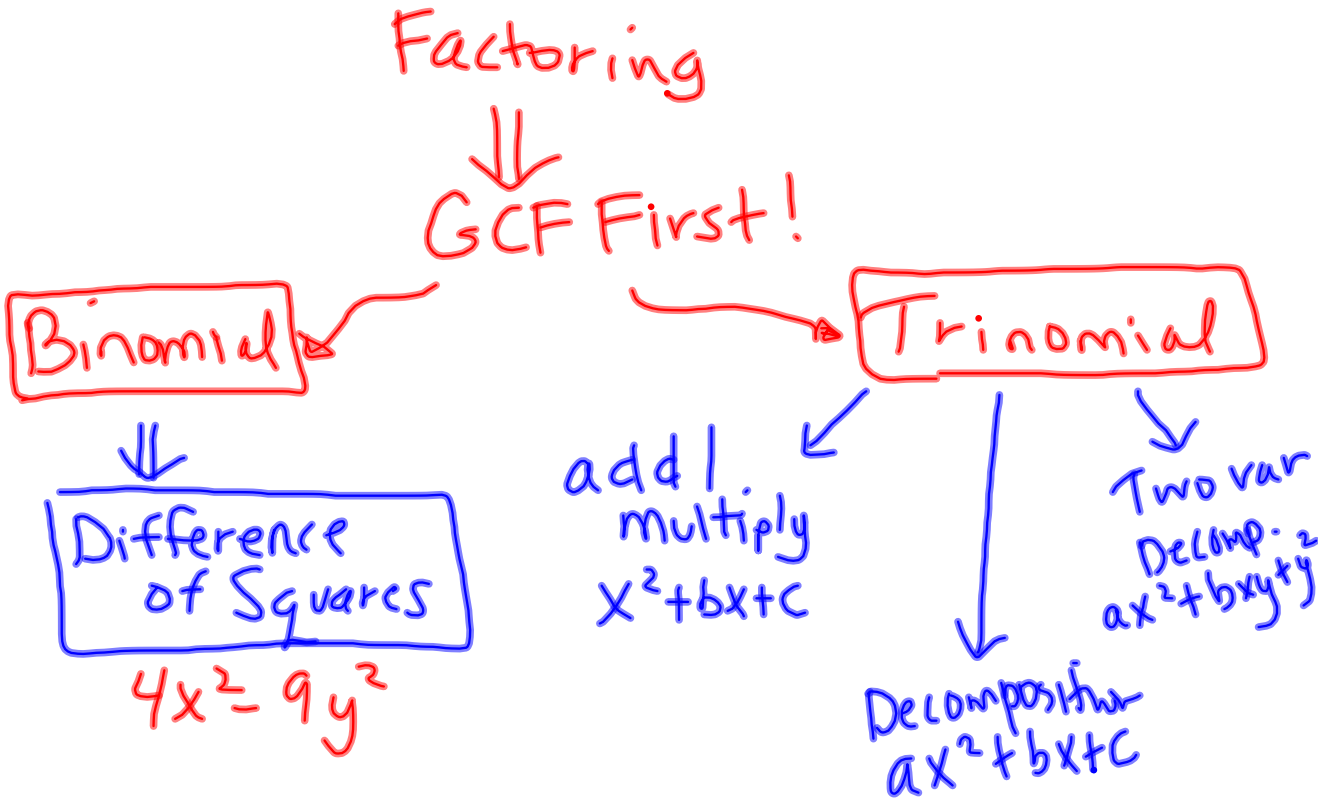
$(3p^2 - 6pq)(+pq - 2q^2)$

$3p(p - 2q) + q(p - 2q)$

$(3p + q)(p - 2q)$

pg. 195
# 12 b, c
13a, b, c

Worksheet from last day


Factoring
GCF First!
Binomial
Trinomial
Difference of Squares
$4x^2 - 9y^2$
add/multiply
$x^2+bx+c$
Two var Decomp.
$ax^2+bxy+y^2$
Decomposition
$ax^2+bx+c$