

Multiply

$$5x(3x+7)$$

$$\boxed{15x^2 + 35x}$$

$$6x^2 - 2x$$

$$3(\cancel{2}x)x - (\cancel{2}x) \cdot 1$$

$$2x(3x-1)$$

39, ~~21~~, 25, ~~19~~, ~~9~~

⑨ $(6x+1)^2$

$$(6x+1)(6x+1)$$

$$36x^2 + \boxed{6x+6x} + 1$$

$$36x^2 + 12x + 1$$

$$(6x)^2 \quad 2 \cdot 6x \cdot 1 \quad 1^2$$

⑩ $(x^2+y^2)^2$

$$(x^2)^2 \quad 2 \cdot x^2 \cdot y^2 \quad (y^2)^2$$

$$x^4 + 2x^2y^2 + y^4$$

$$(x^2+y^2)(x^2+y^2)$$

$$x^4 + 1x^2y^2 + 1x^2y^2 + y^4$$

$$\boxed{x^4 + 2x^2y^2 + y^4}$$


⑪ $(a^2-b^2)^2$

$$(a^2-b^2)(a^2-b^2)$$

$$a^4 - 1a^2b^2 - 1a^2b^2 + b^4$$

$$\boxed{a^4 - 2a^2b^2 + b^4}$$

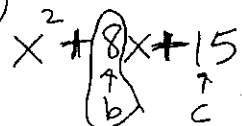
(25) $(3y+2a)(3y-2a)$
 $9y^2 - \cancel{6ay} + \cancel{6ay} - 4a^2$
 $9y^2 - 4a^2$

(39) $x+11$

 $(x+11)(x+11) - x \cdot x$
 $x^2 + 11x + 11x + 121 - x^2$
 $22x + 121$

P. 166 9.5 Notes
 WB
 Factoring Trinomials when $a=1$. Day 78

$ax^2 + bx + c$
 $1x^2 + bx + c$
 $x^2 + bx + c$

Find what multiplies to get "c" (last term)
 + adds to get "b" (middle term)

(ex) $x^2 + 8x + 15$

 $(x+3)(x+5)$ or $(x+5)(x+3)$

(ex) $c^2 - 9c + 20$
 $(c-5)(c-4)$

	20
5	4
-2	10
-1	-20

(1a) $g^2 + 7g + 10 = (g+5)(g+2)$
 $\begin{array}{r|l} 10 & \\ 2 & 5 \end{array}$

(2c) $q^2 - 15q + 36 = (q-3)(q-12)$
 $\begin{array}{r|l} 36 & \\ \hline -6 & -6 \\ \hline -3 & -12 \end{array}$

(1b) $v^2 + 2v + 20 = (v+1)(v+20)$
 (1c) $a^2 + 13a + 30 = (a+3)(a+10)$
 $\begin{array}{r} 30 \\ 5 \overline{) 15} \\ \underline{15} \\ 0 \\ 2 \overline{) 15} \\ \underline{10} \\ 5 \\ 5 \\ \underline{5} \\ 0 \end{array}$

(2a) $k^2 - 10k + 25 = (k-5)(k-5)$
 (2b) $x^2 - 11x + 18 = (x-2)(x-9)$

Ex. 3
 $x^2 + 13x - 48 = (x-3)(x+16)$
 $\begin{array}{r|l} -48 & \\ +8 & -6 \\ 2 & -24 \\ -2 & 24 \\ \hline -3 & 16 \\ 3 & -16 \end{array}$

Ex. 3b
 $n^2 - 5n - 24 = (n-8)(n+3)$
 $\begin{array}{r|l} -24 & \\ -6 & 4 \\ 8 & -3 \\ \hline -8 & 3 \end{array}$

Ex 4.
 $d^2 + 17dg - 60g^2 = (d+20g)(d-3g)$
 $\begin{array}{r|l} -60 & \\ -6 & 10 \\ -2 & 30 \\ -4 & 15 \\ -12 & 5 \\ 12 & -5 \\ -3 & 20 \end{array}$

Quick ✓
 3a, b
 4ab

3a) $m^2 + 8m - 20$
 $(m+10)(m-2)$

$$\begin{array}{r|l} -20 & \\ -10 & 2 \\ \hline 10 & -2 \end{array}$$

3b) $p^2 - 3p - 40$
 $(p+5)(p-8)$

$$\begin{array}{r|l} -40 & \\ 5 & -8 \end{array}$$

4a) $x^2 + 11xy + 24y^2$
 $(x+8y)(x+3y)$

$$\begin{array}{r|l} 24 & \\ 8y & 3y \end{array}$$

4b) $v^2 + 2vw - 48w^2$
 $(v-6w)(v+8w)$

$$\begin{array}{r|l} -48 & \\ 1 & 48 \\ 2 & 24 \\ \hline -6w & 8w \end{array}$$

HW: WKbk p.421
 1st column