Pg. 606-607: 19-21 (a), 23-39 (o), 42-47 (a)

19 A

20 $(6y+1)(y-5)$

21 A

23 $(3t+1)(t+5)$

25 $(2a+1)(3a+1)$

27 $(6b+1)(b-2)$

29 $3(x+1)(2x-5)$

31 $(2z-1)(z+10)$

33 $(4x+7)(x+5)$

35 $(3c-4)(c-11)$

37 $(2t+7)(3t-10)$

39 $(2y-5)(4y-3)$

42 $-\frac{5}{2}, 7$

43 $\frac{3}{2}, 1$

44 $-\frac{1}{3}, 11$

45 $\frac{1}{4}, 5$

46 $\frac{19}{2}, -1$

47 $\frac{13}{5}, -2$

10.7 Factoring Special Products

April 27, 2007

* Part of the Mastery Test

Recall Product of Sum & Diff.

$$(x+3)(x-3) = x^2 - 9$$

$a^2 - b^2$

* Perfect Square (P^s) Minus P^s

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

Recall

Square of a Binomial

$(x+5)^2 = x^2+10x+25$ } w/ Addition

$(a+b)^2 \quad a^2+2ab+b^2$

← Factor

$(x-4)^2 = x^2-8x+16$ } w/ Subt.

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

← Factor

Factor

ex1) $m^2 - 4 = (m+2)(m-2)$ ($p^2 - p^2$)

ex2) $4p^2 - 25 = (2p+5)(2p-5)$ ($p^2 - p^2$)

ex3) $r^2 - 20$ = Not Factorable ($p^2 - ?$)

ex4) $9m^2 - 121 = (3m+11)(3m-11)$ ($p^2 - p^2$)

Factor

ex5] $a^2-2ab+b^2$

$x^2-4x+4 = (x-2)(x-2) = (x-2)^2$

ex6] $a^2+2ab+b^2$

$a^2+18a+81 = (a+9)^2 = (a+9)(a+9)$

Factor

G.C.F.?

ex) $50 - 98x^2$

$2(25 - 49x^2)$

$2(5 + 7x)(5 - 7x)$

Factoring

1. G.C.F.
2. $p^5 - p^5$
3. $a^2 \pm 2ab + b^2$
4. $\_\_ + \_\_ + \_\_$

   $\_\_ - \_\_ + \_\_$

Factor + Solve

ex 8

$$2n^2 - 288 = 0$$

G.C.F. 2

$p^2 - p^2$

$$2(n^2 - 144) = 0$$

$$2(n+12)(n-12) = 0$$

$2 = 0$ or $n + 12 = 0$ or $n - 12 = 0$

$-12 \quad -12$ $\qquad$ $+12 \quad +12$

$n = -12$ or $n = 12$

O.T.L.

① Pg. 613-614: 18-26(e)
27-31(o)
40-58(e)