Algebra I

5-5

Difference of Squares

Factoring Order

1) Greatest Monomial Factoring
   a) stuff in common
   b) backwards distributive

   $3x-21$
   $3(x-7)$

2) Difference of Squares
   1) starts with 2 groups
   2) must be a minus
   3) both groups perfect squares.
   4) answer is a conjugate pair.

   x^2-49
   $(x+7)(x-7)$

3) Backwards FOIL
   1) starts with 3 groups
   2) ends up two

4) Grouping
   1) starts with 4 or more groups.

Simplify. (pg 206)

1) $(y-7)(y+7)$

$y^2+7y-7y-49$

y^2-49

Factor.

27) $b^2 - 36$

$(b+6)(b-6)$

33) $169u^2 - 225$

$(13u+15)(13u-15)$

39) $16 - c^4$

$(4+c^2)(4-c^2)$

$(4+c^2)(2+c)(2-c)$

Factor.

45) $5x^3 - 20x$

$5x(x^2-4)$

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

49) $uv^3 - u^3v$

$uv(v^2-u^2)$

$uv(v+u)(v-u)$

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2-52 even