Algebra II

4-5 and 4-6
(Day 2)

More Factoring

Sum of Cubes-

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

Difference of Cubes-

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

Factor.

*) $x^3 + 64$

$(x)^3 + (4)^3 = (x + 4)(x^2 - 4x + 4^2)$

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

$$\boxed{(x+4)(x^2-4x+16)}$$

Factor each polynomial. (pg 186)

35) $a^6 + b^3$

$((a^2)^3 + b^3) = (a^2 + b)((a^2)^2 - a^2 b + b^2)$

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

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

Assignment:

Pg. 186

17-20 all, 36

40-50 even

Pg. 191

36 - 44 even