Chapter 11 review of factoring Name_____

$2x^4 - 4x^3 + 6x$

$3x + 6$

$x + 5y$

$a(b+c) + d(b+c)$

$6(x-3) + 4(3-x)$

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

$x^2 + 7x + 12$

$x^2 - 4x - 12$

$6x^2 - 17x + 12$

$12x^2 - 33x + 21$

$6x^2 + 11x - 35$

$8x^2 - 3x - 15$

Difference of Squares: $a^2 - b^2 = (a-b)(a+b)$

$x^2 - 9$

$16y^2 - 25$

Sum and Difference of Cubes

$a^3 \pm b^3 = (a \pm b)(a^2 \mp ab + b^2)$

$x^3 + 27$

$2y^4 - 128y$

$x^4y^4 + 8x^2y^2 - 65$

$30x^4 - 7x^3 - 2x^2$

$36x^4 - x^2 - 36x^2y^2 + y^2$

Solve.

$r^2 + 16 = 8r$

$x^3 - 2x^2 = 63x$

$(a-4)(a+4) = 20$

$t^4 - 13t^2 + 36 = 0$