Applying factoring techniques to polynomials involving multiple variables and higher powers...

Completely factor the following polynomials...

a) $2a^2 - 7ab + 3b^2$

$2a^2 - 6ab - 1ab + 3b^2$

$2a(a-3b) - b(a-3b)$

$(a-3b)(2a-b)$

b) $10c^2 - 1cd - 2d^2$

$10c^2 - 5cd + 4cd - 2d^2$

$5c(2c-d) + 2d(2c-d)$

$(2c-d)(5c+2d)$

c) $w^4 - 6w^2y^2 - 27y^4$

$(w^2 - 9y^2)(w^2 + 3y^2)$

$(w-3y)(w+3y)(w^2+3y^2)$

$d)\ a^{16}-1$

$(a^8-1)(a^8+1)$

$(a^4-1)(a^4+1)(a^8+1)$

$(a^2-1)(a^2+1)(a^4+1)(a^8+1)$

$(a-1)(a+1)(a^2+1)(a^4+1)(a^8+1)$

a^9+1

$=(a^3+1)(a^6-a^3+1)$

$8a^3-27$

$(2a-3)(4a^2+6a+9)$

Practice questions...

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Note...

Unit Test is coming up Next week...Wednesday

- If you want to get a start on your review, work on pages 198 - 201 at the end of the chapter.