November 14, 2017

① Difference of Two Squares

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

$81x^2 - 49y^2 = (9x+7y)(9x-7y)$

a^2 b^2

$a = 9x$ $b = 7y$

② Sum of Two Cubes

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

$8x^3 + 64 = (2x+4)(4x^2 - 8x + 16)$

a^3 b^3

$a = 2x$ $b = 4$

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③ Difference of Two Cubes

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

$125y^3 - 27 = (5y-3)(25y^2 + 15y + 9)$

a^3 b^3

$a = 5y$ $b = 3$

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$8 - x^3 = (2-x)(4 + 2x + x^2)$

a^3 b^3

$a = 2$ $b = x$

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Do 6.5 & 6.6

* Review class notes on Sum & Diff. of Two Cubes

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Chapter 7 – Rational Functions

$f(x) = \frac{p(x)}{q(x)}$

$\frac{x^2 - 25}{x^2 - 10x + 25} = \frac{(x+5)(x-5)}{(x-5)(x-5)}$

$= \frac{x+5}{x-5}$

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7.3 Simplifying Rational Functions

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