April 18, 2016

* Exam #3 - Friday
  - Factoring
  - Rational Expressions

Apr 18-9:53 AM

6.5 #27) $-5u^5 - 30u^4 - 45u^3$

GCF = $5u^3$

$5u^3(-u^2 - 6u - 9)$

$5u^3(-1)(u^2 + 6u + 9)$ ac = 9 b = 6 (+ | +, 3 | 3)

$(u^2 + 3u + 3u + 9)$

$u(u+3) + 3(u+3)$

$(-5u^3)(u+3)(u+3)$

$-5u^3(u+3)^2$

$-5u^3[(u+3)(u+3)]$

$-5u^3[u^2 + 6u + 9]$

$-5u^5 - 30u^4 - 45u^3$ ✓

Apr 18-10:03 AM

Factoring Special Forms

① Difference of Two Squares

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

$1 - c^2 = (1+c)(1-c)$

② Sum & Difference of Two Cubes

ⓐ $a^3 + b^3 = (a+b)(a^2 - ab + b^2)$

$8 + 64y^3 = (2+4y)(4 - 8y + 16y^2)$ (a = 2, b = 4y)

ⓑ $a^3 - b^3 = (a-b)(a^2 + ab + b^2)$

$1 - t^3 = (1-t)(1 + t + t^2)$ (a = 1, b = t)

Apr 18-10:20 AM

6.6 Factoring Strategies

① Factor out GCF if it exists

② Use ac & b method on trinomials of the form $ax^2 + bx + c = 0$

③ If an equation, use the Zero Product Property to solve for the variable.

④ Check

Apr 18-10:36 AM

Do 6.6 #1 - #36 m3

#20) $2u^6 - 40u^5 + 200u^4$

GCF = $2u^4$

$2u^4(u^2 - 20u + 100)$ ac = 100 b = -20 (− | −, 10 | 10)

$2u^4(u^2 - 10u - 10u + 100)$

$2u^4[u(u-10) - 10(u-10)]$

$2u^4(u-10)(u-10)$

$2u^4(u-10)^2$

Apr 18-10:40 AM

7.1 Negative Exponents

Do #1 - #75 m3

Apr 18-10:46 AM