

October 25, 2016
 * Quiz #7 - Tomorrow
 5.2 - 5.5
 * No Math Jam Friday
 * Exam #2 - Next Wednesday
 November 3rd

Oct 25-8:59 AM

5.5
 #30) $(2^{2m-9})^3 = 2^{(2m-9)(3)}$
 $= 2^{6m-27}$
 $(a^m)^n = a^{mn}$
 #45) $(-3x^8y^2)^4$
 $= (-3)^4 (x^8)^4 (y^2)^4$
 $= -81x^{32}y^8$

Oct 25-9:04 AM

#48) $(9b^{6n})^3$
 $= (9)^3 \cdot (b^{6n})^3$
 $= 729b^{18n}$

Oct 25-9:09 AM

#42) $(-2b)^3$
 $= (-2b)(-2b)(-2b)$
 $= (-2)(-2)(-2)(b)(b)(b)$
 $= -8b^3$

Oct 25-9:09 AM

5.6 Multiplication
 of
 Polynomials
 $(a+b)^2 = (a+b)(a+b)$
 Base
 $\neq a^2 + b^2$

Oct 25-9:15 AM

$(6y)(-5xy)$
 $= 6 \cdot y \cdot (-5) \cdot x \cdot y$
 $= 6 \cdot (-5) \cdot y \cdot y \cdot x$
 $= -30y^2x$

Oct 25-9:20 AM

$$3x(x+4)$$

$$3x^2 + 12x$$

Oct 25-9:22 AM

$$-x(x^3 - 2x^2 + 5x - 9)$$

$$-x^4 + 2x^3 - 5x^2 + 9x$$

Degree: 4

Oct 25-9:24 AM

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

FOIL

$$= a \cdot a + a \cdot b + b \cdot a + b \cdot b$$

$$= a^2 + 2ab + b^2$$

Oct 25-9:28 AM

$$(x+3)(x-5)$$

F: $x \cdot x = x^2$
 O: $x \cdot (-5) = -5x$
 I: $3 \cdot x = 3x$
 L: $3 \cdot (-5) = -15$

Collect like terms
 $-2x$

$$x^2 - 2x - 15$$

Oct 25-9:35 AM

$$(2xy^2 - 8)(-x + 5y)$$

F: $(2xy^2)(-x) = -2x^2y^2$ D: 4
 O: $(2xy^2)(5y) = 10xy^3$ D: 4
 I: $(-8)(-x) = 8x$ D: 1
 L: $(-8)(5y) = -40y$ D: 1

$$-2x^2y^2 + 10xy^3 + 8x - 40y$$

Oct 25-9:37 AM

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

$$3x^5 + 2x^3 - 3x^2 - 6x + 6$$

Collect like terms

$$3x^5 - 4x^3 - 3x^2 - 4x + 6$$

Oct 25-9:44 AM

$$(4x^6 - 2x^4 - 3x^3 + 2)(x + 1)$$
$$4x^7 + 4x^6 - 2x^5 - 2x^4 - 3x^4 - 3x^3$$
$$+ 2x + 2$$
$$4x^7 + 4x^6 - 2x^5 - 5x^4 - 3x^3 + 2x + 2$$

Oct 25-9:47 AM