Slide 1 — Oct 24-9:52 AM

October 24, 2016

5.6 *Multiplication of Polynomials*

$$(6xy)(-3x) = \boxed{-18x^2y}$$

$$= 6 \cdot x \cdot y \cdot (-3) \cdot x$$

$$= 6 \cdot (-3) \cdot x \cdot x \cdot y$$

$$= -18 \cdot x^2 \cdot y$$

$$= \boxed{-18x^2y}$$

Slide 2 — Oct 24-10:08 AM

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

$$\boxed{-2xy + 6y^2}$$

or   D: 2

$$\boxed{6y^2 - 2xy}$$

Slide 3 — Oct 24-10:12 AM

FOIL

$$(x + 3)(x + 4)$$

$$x \cdot x + x \cdot 4 + 3 \cdot x + 3 \cdot 4$$

$$x^2 + 4x + 3x + 12$$

$$\boxed{x^2 + 7x + 12}$$

F   O+I   L

Slide 4 — Oct 24-10:17 AM

$$(x - 5)(x + 6)$$

F: $x \cdot x = x^2$

O: $x \cdot 6 = 6x$

I: $-5 \cdot x = -5x$ } x

L: $-5 \cdot 6 = -30$

$$\boxed{x^2 + x - 30}$$

Slide 5 — Oct 24-10:19 AM

$$(2y^2 - 3)(-4y + 5)$$

$$-8y^3 + 10y^2 + 12y - 15$$

Slide 6 — Oct 24-10:23 AM

Can not FOIL!

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

$$2x^3 - 3x^2 + 9x + 10x^2 - 15x + 45$$

$$\boxed{2x^3 + 7x^2 - 6x + 45}$$

$$(x-7)^{③}$$

$$2 \cdot 3 \cdot 4 = 6 \cdot 4 = 24$$

$$= \big[(x-7)(x-7)\big](x-7)$$

$$= \left(x^2 - 7x - 7x + 49\right)(x-7)$$

$$= \left(x^2 - 14x + 49\right)(x-7)$$

$$= x^3 - 7x^2 - 14x^2 + 98x + 49x - 343$$

$$= \boxed{x^3 - 21x^2 + 147x - 343}$$

Oct 24-10:25 AM

$$(5y+2)^3$$

$$(5y+2)(5y+2)(5y+2)$$

$$\left(25y^2 + 20y + 4\right)(5y+2)$$

$$125y^3 + 50y^2 + 100y^2 + 40y + 20y + 8$$

$$\boxed{125y^3 + 150y^2 + 60y + 8}$$

Oct 24-10:35 AM

$$\left(x^2 - 2x + 4\right)^2$$

$$= \left(x^2 - 2x + 4\right)\left(x^2 - 2x + 4\right)$$

$$= x^4 - 2x^3 + 4x^2 - 2x^3 + 4x^2 - 8x$$
$$+ 4x^2 - 8x + 16$$

$$= \boxed{x^4 - 4x^3 + 12x^2 - 16x + 16}$$

Oct 24-10:42 AM

$$(3x-5)^4$$

Due Tomorrow

Oct 24-10:47 AM

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