

Do Now

Simplify

$$(y + 5x)(x^3 - y^3 + 2x^2y + 3xy^2)$$

4.1-4.6 REVIEW

4.1 - EXPONENTS

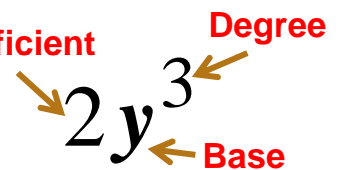
$$-5^2$$

$$(-5)^2$$

Evaluate x^3 if $x = -2$

4.2 - ADDING AND SUBTRACTING POLYNOMIALS

- MONOMIALS
- BINOMIALS
- TRINOMIALS
- COEFFICIENT
- LIKE TERMS
- DEGREE



4.2 - ADDING AND SUBTRACTING POLYNOMIALS

Rules:

- Add like monomials
- Add only the coefficients
- Leave exponents alone

$$(3a^2 + 2ab - 2b^2 - 7) - (-a^2 - 5ab - 4b^2 - 2)$$

4.3 - MULTIPLYING POLYNOMIALS

Rules

- Add exponents
- Multiply only the coefficients

$$a^7 \cdot a^8$$

$$(-8x^5y^6)(7x^3y^9)$$

$$5^2 \cdot 5^8$$

4.4 – POWERS OF EXPONENTS

Rules

- Multiply exponents
- “Distribute” exponents

$$(a^5)^3$$

$$(-8x^5y^3)^2$$

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

4.5 – MULTIPLYING POLYNOMIALS BY MONOMIALS

Rules

- Distributive Property

$$6xy^3(5x^2 + 2xy + 7y)$$

4.5 – MULTIPLYING POLYNOMIALS BY MONOMIALS

Rules

- Distributive Property

$$6xy^3(5x^2 + 2xy + 7y)$$

4.6 – MULTIPLYING POLYNOMIALS

Rules

- Repeat distributive property

$$(2x - 3)(3x^2 - 4x - 2)$$