

Dividing monomials 1.24.17

Warm up: Simplify the following 3 expressions to be one monomial.

$$(3x^5)(6x^7)$$

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

$$(3x^3)^2[(-6x^3)^4]$$

Go over HW

Quotient of powers

Sometimes to simplify monomials we must use the property of quotients. Does anyone remember how to do this?

Together $\frac{a^3b^5}{ab^3} = a^4b^5$ $\left(\frac{2p^2}{3}\right)^4$ $\frac{b^{-3}c^{-4}}{d^{-5}}$

You try: $\frac{-3a^{-4}b^7}{-21a^2b^7c^{-5}}$

Practice: $\frac{-2a^3}{10a^8}$

$$n^2(p^{-4})(n^{-5})$$

Polynomial: a monomial or a sum of monomials.

Binomial: The sum of 2 monomials

Trinomial: The sum of trinomials

The degree of a *monomial* is the sum of the exponents of all its variables

The degree of a *polynomial* is the greatest degree of any term in the polynomial.

To find the degree of a polynomial you must find the degree of each term

Most polynomials are arranged by order of degree from greatest to least

For example: $6x^2 - 4x^4 + 57x^3 + 12x + 5$ becomes $-4x^4 + 57x^3 + 6x^2 + 12x + 5$

HW PG 421 #14-16, 24-26, 434 # 15-20, 33-36, 45-47