

5-3 Multiplying and Dividing Monomials

monomial - expression that is either a numeral, variable, or product of a number and variable with exponents

Constant - number

Key Questions

Is $2xy$ a monomial?

Yes.

Is $2x + y$ a monomial?

No. It's a binomial

Is the product of two monomials always a monomial?

Yes

Multiply integers then apply laws of exponents

Multiply

$$(7y)(2y) = 14y^2$$

$$(5a^3)(3a^2) \\ 15a^5$$

$$(-3x^3)(4xy^5) \\ -12x^4y^5$$

$$(7r^3)(-2r^4)(3r^5) \\ -42r^{12}$$

Divide integers then apply laws of exponents

Divide

$$\frac{y^7}{y^4} = y^{7-4} = y^3 \quad \frac{6a^9}{8a^4} = \frac{3}{4}a^5 \quad \frac{9a^3b^5}{3a^2b^3}$$

$6 \boxed{A^b/c} 8 \boxed{=}$ $3a^1b^2$

$$p, 215 - 216$$

2-20 even

26-42 even