

Dividing Monomials

Warmup

1. Simplify: $(4)(6c^5)$

2. Simplify: $(2x^3)(5x^8)$

3. $\frac{12}{-3} =$

4. $-20 \div -4 =$

5. $\frac{7}{7} =$

- I. Dividing Monomials with Coefficients
- II. Dividing Monomials with Signed Number Coefficients
- III. Dividing Monomials with Larger Exponents in the Denominator

Homeschool



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Pre-Algebra and Geometry I

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I. Dividing Monomials with Coefficients of One

Divide Monomials with Coefficients of 1: To divide monomials, keep the _____, _____ the exponents.

$$\frac{x^2}{x} =$$

$$\frac{a^7}{a^3} =$$

$$\frac{m^9}{m^7} =$$

The exponent for base x is _____

$$\frac{p^{10}}{p^5} =$$

$$\frac{s^{15}}{s^5} =$$

$$6. \frac{t^{12}}{t^5} =$$

7.

II. Dividing Monomials with Signed Number Coefficients

When the coefficients are signed numbers: Follow the rules of signed numbers to determine the coefficient of the answer.

$$\frac{6p^{14}}{2p^7} =$$

Keep the base
Subtract the exponents.

$$\frac{16y^{16}}{-4y^{11}} =$$

$$8. \frac{32d^{20}}{-4d^{14}} =$$

9.

III. Dividing Monomials with Larger Exponents in the Denominator

When the exponent in the denominator is larger than the exponent in the numerator, there are two options for writing the answer:

- 1 The exponent in the answer is _____, or
- 2 The base and exponent are left in the denominator with a _____ exponent.

$$\frac{6t^2}{3t^5} =$$

$$\frac{12y^6}{-4y^{13}} =$$

$$10. \frac{-36w^{15}}{-4w^9} =$$

11.











