

Name _____

Section 2.4

Algebra II: Division with Monomials

Essential Question:

How do I divide with monomials?

Examples:

$$1) \frac{10}{2} \div \left(\frac{2}{2}\right) = \frac{5}{1} = 5 \cdot \frac{2}{2} = 1 \quad 2) \frac{2a^1}{a^1} \left[\frac{a}{a} = 1\right]$$

$$3) \frac{X^4}{X} = \frac{\cancel{X} \cancel{X} \cancel{X} \cancel{X}}{\cancel{X}} = X^3 \quad 4) \frac{2X^3}{X^2} = \frac{2 \cancel{X} \cancel{X} \cancel{X}}{\cancel{X} \cancel{X}} = 2X$$

$$5) \frac{-4ab^4}{2ab} = \frac{-2 \cancel{2} \cancel{a} \cancel{b} \cancel{b} \cancel{b} \cancel{b}}{\cancel{1} \cancel{2} \cancel{a} \cancel{b}} = -2b^3$$

If only the top or bottom is negative - the answer will be negative.

Class Practice

$$\textcircled{1} \frac{X^6}{X}$$

$$\textcircled{2} \frac{X^4}{X^3}$$

$$\textcircled{3} \frac{a^7}{a^4}$$

$$\textcircled{4} \frac{5X}{X}$$

$$\textcircled{5} \frac{3c^2}{c}$$

$$\textcircled{6} \frac{4ab}{a}$$

$$\textcircled{7} \frac{8a^2b}{ab}$$

$$\textcircled{8} \frac{-7X^2}{X^2}$$

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Divide with Monomials.

$$1) \frac{2a}{2a}$$

$$2) \frac{-6x}{x}$$

$$3) \frac{6c}{2}$$

$$4) \frac{-5ax}{a}$$

$$5) \frac{c^9}{c^4}$$

$$6) \frac{2x^2}{x}$$

$$7) \frac{10a^5}{2a^3}$$

$$8) \frac{-6mn}{mn}$$

$$9) \frac{12rs}{-3}$$

$$10) \frac{4ab}{-2b}$$

$$11) \frac{-8ab^2}{-2a}$$

$$12) \frac{-64x^4}{8x^2}$$

$$13) \frac{-81b^2}{9b}$$

$$14) \frac{36n^6}{6n^4}$$

$$15) \frac{48bc^2}{-8c^2}$$

$$16) \frac{36a^2b^2}{-6ab}$$

$$17) \frac{50m^3n^2}{2m^2n}$$


$$18) \frac{30pq^2}{-3pq}$$


$$19) \frac{48r^6s^4}{4r^4s^3}$$


$$20) \frac{-12x^2y^6}{-xy^4}$$


$2x^2$	4	$-4x$	$2x^2$	4	$-4x$	$2x^2$	4	$-4x$	$2x^2$
$-2x^2$	-3	$-3x^2$	$-2x^2$	-3	$2x$	$-2x^2$	-3	$-3x^2$	$-2x^2$
$3x$	$-2x$	-4	$3x$	$-2x$	-4	$3x$	$-2x$	-4	$3x$
$2x^2$	4	$-4x$	$2x^2$	4	$-4x$	$2x^2$	4	$-4x$	$2x^2$
$-2x^2$	-3	$2x$	$-2x^2$	-3	$-3x^2$	$-2x^2$	-3	$2x$	$-2x^2$
$-3x$	$-3x^2$	-3	$-3x$	$2x$	-3	$-3x$	$-3x^2$	-3	$-3x$
8	-1	$4x$	8	-1	$4x$	8	-1	$4x$	8
$3x^2$	-4	$-2x$	$3x^2$	-4	$-2x$	$3x^2$	-4	$-2x$	$3x^2$
$-3x$	$2x$	-3	$-3x$	$-3x^2$	-3	$-3x$	$2x$	-3	$-3x$
8	-1	$4x$	8	-1	$4x$	8	-1	$4x$	8


Divide.


 $(-6x) \div (-3)$


 $12x \div (-4x)$


 $(-8x^2) \div 4x$


 $4x \div (-x)$


 $3x^3 \div (-x)$


 $(-12x) \div (-4)$


 $(-13x) \div 13x$


 $8x^3 \div (-4x)$


 $(-20x) \div (-5)$


 $15x^3 \div (-5x^2)$

 $(-36x) \div (-9x)$

 $(-12x^2) \div (-4)$

 $24x^2 \div (-6x)$

 $(-9x^2) \div (-3x^2)$

 $(-8x^3) \div (-4x)$