

MasterMath

Name _____

Exponential Properties Involving Quotients; Zero and Negative Exponents

Date _____

1. Simplify:

expression	simplified
6^{-2}	$1/36$
z^0	1
$(x^2y)^3$	x^6y^3
$x^3 * x^5$	x^8
$(2y^3)^2$	$4y^6$
$(3x^3) \div (3x)$	x^2
$(x/y)^2$	$(x^2)/(y^2)$
$(4x/2)^4$	$16x^4$
$1/6^{-2}$	36

2. Simplify; your answer should not contain any negative exponents.

Just For Fun

10^3	1000
10^2	100
10^1	10
10^0	1
10^{-1}	0.1
10^{-2}	0.01
10^{-3}	0.001

expression	simplified
$5c^{-3}d^4$	$\frac{5}{c^3d^4}$
$\frac{1}{8x^2y}$	$\frac{x^2}{8y}$
$\frac{(3x)^3y^4}{3x}$	$\frac{y^4}{81x^4}$
$(-16x^3y^5)^0$	1
$(5m)^{-3}n^4$	$\frac{1}{125m^3n^4}$
$3^{-2} * 3^{-3}$	$\frac{1}{243}$
$(-2^{-2})^3$	$\frac{-1}{64}$
$\frac{9}{(3d)^{-3}}$	$243d^3$
$(2x^{-2}y^3)^{-3}$	$\frac{x^6}{8y^9}$
$\frac{16x^8y^{-7}}{(4x^{-2}y^{-6})^2}$	$x^{12}y^5$
$\frac{2^4}{10^3}$	$\frac{2}{125}$
$4x^{-5} * xy^3$	$\frac{4y^3}{x^4}$

3. Simplify: $(5x^2y^3z^{-1})^2 * (2xy^{-5})^3$

$\frac{200x^7}{yz^2}$
