## 5.6a Dividing Monomials

Wednesday, December 16,2015 12:21 PM
5.6a dividing Monomials by Monomials

Math 9 Notes
Name

Warm up
Simplify in power form

$$
\text { a) } \begin{aligned}
& 4^{5} \div 4^{3} \\
= & 4^{5-3} \\
= & 4^{2}
\end{aligned}
$$

b) $\frac{2^{7}}{2^{6}}$
c) $y^{3} \div y$

$$
=2^{\prime}=2
$$

$=y^{2}$

What is the rule for dividing powers with the same base?
subtract the exponents.
Example 1) Divide $\frac{8 x^{2}}{2 x} \begin{gathered}8 \div 2=4 \\ x^{2} \div x=x\end{gathered}>4 x$

What are the steps for dividing monomials?
(1) Divide coefficients
(2) divide lice variables (subtrac texponents)

Example 2 -Simplify
a) $16 y \div 4 y$
b) $-12 a b \not \subset \div-2 b p$
$x^{5-2} y^{2-1}$
$16: 4=4$
$=G a$
$-3 x^{3} y$
$=4$
b) $\frac{10 m^{8} n^{5}}{5 m^{3} n^{2}}$

$$
\begin{aligned}
& 2 m^{8-3} n^{5-2} \\
= & 2 m^{5} n^{3}
\end{aligned}
$$

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Example 4 - simplify

$$
\begin{gathered}
\text { a) } \frac{z^{2} x^{2}+y^{4}}{} \\
=\frac{2=2}{6 \div 2} x^{2-(-2)} y^{1-4} \\
=\frac{1}{3} x^{4} y^{-3} \text { OR } \frac{x^{4} y^{-3}}{3} \\
y^{-3}=\frac{1}{y^{3}} \\
\text { Son } \frac{x^{4}}{3 y^{3}}
\end{gathered}
$$

dividing
Describe the steps in your own words for monomials by monomials
$\qquad$
$\qquad$
$\qquad$
Assignment: puzz le p.76

