

Review: cont'd

Monday, November 17, 2014

8:37 AM

$$\#4: \frac{x^{-2}}{x^3} = x^{-2-3} = x^{-5}$$

$$\text{or} = x^{-2} x^{-3} = x^{-5} \text{ or } \frac{1}{x^5}$$

↑
put everything
in numerator

↑
use
positive
exponents

$$\#10: (2x^{-1}y^2)^{-3}$$

method #1

$$= 2^{-3} x^3 y^{-6}$$

$$= \frac{1}{8} x^3 y^{-6} \text{ or } \frac{x^3}{8y^6}$$

method #2

$$= \frac{1}{(2x^{-1}y^2)^3}$$

$$= \frac{1}{2^3 x^{-3} y^6} = \frac{x^3}{8y^6}$$

$$\#13: \left(\frac{2^6}{3^9}\right)^{1/3} = \frac{2^2}{3^3} = \frac{4}{27}$$

recall: $x^2 x^3 = x^5$

$$(x^2)^3 = x^6$$

$$(xy)^3 = x^3 y^3$$

note: $(x+y)^3 \neq x^3 + y^3$

$$= x^3 + 3x^2y + 3xy^2 + y^3$$

#16: $(\sqrt[3]{y})^6 = (y^{1/3})^6 = y^2$