p. 14-15 Rational Exponents 6.4

WARM UP:

p. 14

1) $\left(\frac{2x^3y^{-3}z}{3z^2}\right)^2$

$\frac{2^2x^6y^{-6}z^2}{3^2z^4}$

$\frac{4x^6}{9y^6z^2}$

2) $\left(\frac{4x^{-4}y^{-2}w^{-1}}{xy^3}\right)^{-1}$

$\frac{4^{-1}x^4y^2w^1}{x^{-1}y^{-3}}$

$\frac{x^5y^5w^1}{4}$

p. 14-15 Rational Exponents 6.4

p. 15

1) $\left(x^{\frac{2}{3}}\right)^{-3}$

$\frac{2}{3}\cdot(-3)$

x^{-2}

$\frac{1}{x^2}$

2) $(-27x^{-9})^{\frac{1}{3}}$

$(-27)^{1/3}x^{-3}$

$-3x^{-3}$

p. 15

3) $\left(\dfrac{x^{\frac{1}{4}}}{y^{-\frac{3}{4}}}\right)^{12}$

$\dfrac{x^3}{y^{-9}}$

x^3y^9

4) $(x^{\frac{1}{2}}y^{-\frac{2}{3}})^{-6}$

$x^{-3}y^4$

$\dfrac{y^4}{x^3}$

p. 14

Closer:

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