

Name: _____

Pre-test 14, version 2

1b) Rewrite and evaluate each expression: if possible

a.) $\sqrt[4]{10^3}$

b.) $\frac{\partial x}{\partial y}$

8 (x/y)

c.) $(\sqrt[7]{2^5})^{\frac{2}{1}}$

$$\left(2^{\frac{5}{7}}\right)^{\frac{2}{1}} = 2^{\frac{5 \cdot 2}{7 \cdot 1}}$$

2^{10/17}

2.69

$$x^{-11} \cdot x^{15} = x^4$$

2.) Fully simplify with no negative exponents:

$$a) \frac{4x^2y''}{68x^2y^{-3}}$$

b.) $\frac{4x^{10}y^3 \cdot 9r^7 \cdot 10}{5(x^{-2}y^4)(6)^4}$

$$\begin{array}{r} 4x^{10}y^3z^7 \\ 5x^8y^{16}z^4 \end{array}$$

$$\begin{array}{l} \text{5(x+6)} \\ \quad \smile \\ \text{5(6x)} \\ \text{506x} \end{array}$$

$$\begin{array}{c} \cancel{x} - \cancel{x} \\ \downarrow \\ \cancel{x} \cdot \cancel{x} \cdot \cancel{x} \cdot x^{18} r^7 \\ \hline \cancel{x} \cdot 1296 y^{13} \\ \swarrow \quad \searrow \\ \cancel{x} \quad 1x4 \\ \quad \quad \quad \uparrow \\ \quad \quad \quad \cancel{x} \cdot \cancel{36} \\ \quad \quad \quad \quad \quad \quad \uparrow \\ \quad \quad \quad \quad \quad \quad \cancel{x} \quad 18 \end{array}$$

$$\begin{array}{r} x^{18} r^7 \\ \hline 18 y^{13} \end{array}$$