

Algebra 8: 7.4b Assignment

Directions: Simplify each expression. Include calculations or an explanation to support your answers.

1. $\left(\frac{2}{5}\right)^2$

5. $\left(\frac{3}{4}\right)^{-2}$

2. $\left(\frac{x^2}{xy^3}\right)^3$

6. $\left(\frac{2x}{y^3}\right)^{-4}$

3. $\left(\frac{a^3}{a^3b}\right)^2$

7. $\left(\frac{2}{3}\right)^{-1} \cdot \left(\frac{3a}{2b}\right)^{-2}$

4. $\left(\frac{y^{10}}{y^3}\right)^{-2}$

8. $\left(\frac{x^3}{y^2}\right)^{-4}$

Name _____

Period _____

9.
$$\frac{(5x^2)^3}{5x^2}$$

13.
$$\left(\frac{b^{-2}}{b^3}\right)^2$$

10.
$$\left(\frac{c^2 a^3}{a^5}\right)^2$$

14.
$$\left(\frac{10^2}{10^{-5} \cdot 10^5}\right)^{-1}$$

11.
$$\left(\frac{3a}{a^3 a^0}\right)^3$$

15.
$$\left(\frac{x^2 y^2}{x^2 y}\right)^{-3}$$

12.
$$\left(\frac{-p^4}{-5p^3}\right)^{-2}$$

16.
$$\left(\frac{x^{12}}{3xy^4}\right)^{-2}$$