

Practice Assignment #2

Simplify. Your answer should contain only positive exponents.

1)
$$\frac{a^{-2}b^{-1}}{a^3b^{-2} \cdot (ab^{-3})^4}$$

2)
$$\frac{x^{-4}y^{-2} \cdot xy^2}{(x^{-1}y^{-1})^2}$$

3)
$$\frac{b^4 \cdot (2a^{-1})^4}{2a^3}$$

4)
$$\frac{2x^0y^0 \cdot x^{-4}y^3}{(x^3y^{-1})^{-1}}$$

5)
$$\left(\frac{u^3v^3}{2u^{-1}v^2 \cdot 2u^3} \right)^{-1}$$

6)
$$\frac{2y^2 \cdot (yx^0)^{-4}}{2x^2}$$

7)
$$\left(\frac{x^3 y^{-4}}{(2xy)^0 \cdot (x^3 y^2)^3} \right)^0$$

8)
$$\frac{(2a^3 b^3)^4}{a^2 b^2 \cdot 2ab^{-4}}$$

9)
$$\frac{2v \cdot u^0 v^{-4}}{(u^2)^4}$$

10)
$$\left(\frac{2v^4 \cdot 2u^{-1} v^4}{2u^{-1} v^2} \right)^3$$

Simplify. Write each answer in scientific notation.

11) $(1.6 \times 10^{-1})(6.8 \times 10^{-2})$

12) $(3.1 \times 10^{-5})(2 \times 10^{-1})$

13)
$$\frac{9.05 \times 10^3}{5 \times 10^{-5}}$$

14)
$$\frac{3.9 \times 10^0}{9.3 \times 10^1}$$