

Simplify each expression using properties of exponents. Your answer should contain only positive exponents.

1. $(x^{-2}x^{-3})^4$

2. $(x^4)^{-3} \cdot 2x^4$

3.
$$\frac{2x^2y^4 \cdot 4x^2y^4 \cdot 3x}{3x^{-3}y^2}$$

4.
$$\frac{2y^3 \cdot 3xy^3}{3x^2y^4}$$

5.
$$\frac{(2x)^{-4}}{x^{-1} \cdot x}$$

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

7.
$$\frac{(2pm^{-1}q^0)^{-4} \cdot 2m^{-1}p^3}{2pq^2}$$

8.
$$\frac{(2hj^2k^{-2} \cdot h^4j^{-1}k^4)^0}{2h^{-3}j^{-4}k^{-2}}$$