

*Simplify.*

1.  $(x^3y^2)(6x^4)^2$

2.  $\frac{12a^4b^{-3}}{20a^3b^2}$

3.  $(-2r^3s^{-1})^2$

4.  $\frac{2xy^7}{3x^{-2}y^2} \cdot \frac{9x^{-3}y}{y^3}$

5.  $2x(-3x^2y^5)^3$

6.  $(3x^6y^{-2})^3(2x^3y^4)^{-2}$

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

8.  $(6x^{-2}y^2)^{-3}$

9.  $(7x^3y^9)^0(-3x^3)^2$

10.  $\frac{9a^3b^{-4}c^0}{12a^{-2}b^3c^2}$

11.  $\left(\frac{5xy}{20x^{-2}y^7}\right)^{-3}$

12.  $(-2xy^3)(-4x^2y^5)^{-2}$