

Name _____

Power of Products

Rewrite each expression by using power of product rule.

1) $(2a^2 \cdot 4b^4)$ $(2a \cdot 4b^2)^2$	2) $(3x^{15} \cdot 4y^{20})$ $(3x^3 \cdot 4y^4)^5$
3) $\frac{5x^6}{3y^9}$ $(5x^2 \cdot 3y^{-3})^3$	4) $\frac{2b^8}{7a^6}$ $(7a^{-3} \cdot 2b^4)^2$
5) $\frac{a^3 \cdot b^6}{c^3}$ $(a \cdot b^2 \cdot c^{-1})^2$	6) $\frac{4x^8 \cdot 2z^4}{3y^{12}}$ $(4x^2 \cdot 3y^{-3} \cdot 2z)^4$
7) $\frac{3x^6}{2y^4 \cdot 4z^6}$ $(3x^3 \cdot 2y^{-2} \cdot 4z^{-3})^2$	8) $\frac{-4a^6}{-3b^9 \cdot c^{21}}$ $(-4a^2 \cdot -3b^{-3} \cdot 5c^{-7})^3$