

Name _____

Power of Products

Simplify by using power of product rule.

1) $(x^3 \cdot x^4 \cdot 2x^3)^3$ $(8x^{30})$	2) $(3b^3 \cdot b^4 \cdot b^7)^4$ $(27b^{56})$
3) $(a^3 \cdot 5a^4 \cdot 2a^3)^5$ $(100000a^{50})$	4) $(3c^2 \cdot 2c^3 \cdot c^2)^2$ $(36c^{14})$
5) $(2a^2 \cdot 3a^2 \cdot 2a^3)^3$ $(1728a^{21})$	6) $(2z^3 \cdot 2z^4 \cdot z^3)^3$ $(64z^{30})$
7) $(3x^2y^3 \cdot 5y^4 \cdot 2xy^3)^2$ $(900x^6y^{20})$	8) $(3x^2yz^3 \cdot z^4 \cdot 2xy^3)^4$ $(1296x^{12}y^{16}z^{28})$