

Name _____

Multiplying Exponents

Write the answer as a single exponent.

1) $(2^2)^3$ 2^6	2) $(5^4)^2$ 5^8	3) $(-3^3)^5$ -3^{15}
4) $(-4^5)^4$ -4^{20}	5) $(2x)^3$ $8x^3$	6) $(5xy^4)^3$ $125x^3y^{12}$
7) $(2x^2y^4)^3$ $8x^6y^{12}$	8) $(10c^3d^2)^2$ $100c^6d^4$	9) $(3a^{-3}b^3)^4$ $\frac{81b^{12}}{a^{12}}$
10) $(-4c^5b^2)^3$ $-64c^{15}b^6$	11) $(2x^3y^2z^4)^5$ $32x^{15}y^{10}z^{20}$	12) $(2b^3c^4)^{-2}$ $\frac{4}{b^6c^8}$