

Name _____

Operation With Exponents

Simplify and write each answer in scientific notation.

Round to the nearest thousandth if needed.

$$1) (1.31 \times 10^3)^3 \quad \underline{2.248 \times 10^9}$$

$$2) (1.49 \times 10^{-2})^{-3} \quad \underline{3.023 \times 10^5}$$

$$3) (5.7 \times 10^{-3})^3 \quad \underline{1.852 \times 10^{-7}}$$

$$4) (6.1 \times 10^4)^{-2} \quad \underline{2.687 \times 10^{-10}}$$

$$5) (5 \times 10^{-2})^{-3} \quad \underline{8 \times 10^3}$$

$$6) (4 \times 10^5)^3 \quad \underline{6.4 \times 10^{16}}$$

$$7) (6.2 \times 10^{-3})^{-2} \quad \underline{2.601 \times 10^4}$$

$$8) (8 \times 10^{-2})^3 \quad \underline{5.12 \times 10^{-4}}$$

$$9) (4.6 \times 10^{-2})^3 \quad \underline{9.734 \times 10^{-5}}$$

$$10) (4.2 \times 10^4)^3 \quad \underline{7.409 \times 10^{13}}$$

$$11) (9 \times 10^5)^{-2} \quad \underline{1.235 \times 10^{-12}}$$

$$12) (2.52 \times 10^2)^{-2} \quad \underline{1.575 \times 10^{-5}}$$