

Homework #48 - Multiplying and Dividing Numbers in Scientific NotationMultiply or Divide the following. Write your answer in scientific notation.

1) $(1.08 \times 10^{-3})(9.3 \times 10^{-3})$ 0.000010044 1.0044×10^{-5}	2) $(8.42 \times 10^3) \div (5 \times 10^2)$ 16.84 1.684×10^1
3) $\frac{8.6 \times 10^6}{2 \times 10^6}$ 4.3×10^0 or 4.3	4) $(2.32 \times 10^{-6})(4 \times 10^{-5})$ 9.28×10^{-11}

5) Alaska is the largest state in the United States with an area of about 1.5×10^6 square kilometers. Rhode Island is the smallest state with an area of about 2,500 square kilometers. How many times larger is Alaska than Rhode Island? Write in **standard** form.

Division $\frac{1.5 \times 10^6}{2.5 \times 10^3} = 600$ 2.5×10^3

6) The surface area of Lake Superior, the largest of the Great Lakes, is 8×10^4 square kilometers. The surface area of the smallest Great Lake, Ontario, is 18,160 square kilometers. Approximately, how many times as great is the area covered by Lake Superior than Lake Ontario? Write answer in standard form.

$\frac{8 \times 10^4}{1.816 \times 10^4} = 4.41$

7) One terabyte of data storage is approximately 1,000,000,000,000 bytes of data. About how many bytes of data are in four terabytes? Express answer in scientific notation.

$(1.1 \times 10^{12}) \cdot (4) = 4.4 \times 10^{12}$