

Name

Significant figures, Scientific notation with dimensional analysis

Calculate the following using the correct significant figures. Include correct units with your answer.

$$(35.70 \times 10^{25} \text{ g}) / (5.1796 \times 10^{-5} \text{ mL}) =$$

$$(9.560 \times 10^8 \text{ m}) \times (6.12 \times 10^{10} \text{ m}) =$$

$$(.0012501 \text{ km}) \times (1.579 \times 10^{13} \text{ km}) \times (8.00012 \times 10^{12}) =$$

$$(6.88 \times 10^2 \text{ L}) \times (3.45 \times 10^{-10} \text{ L}) =$$

Write the answers in scientific notation making sure that you use the correct number of significant figures. Make sure to write the correct unit.

$$(2.5 \times 10^9 \text{ g})(6.45 \times 10^4 \text{ g}) =$$

$$(4.50 \times 10^{-12} \text{ cm})(3.67 \times 10^{-12} \text{ cm}) =$$

$$(3.5 \times 10^2 \text{ miles}) \times (0.0209 \times 10^{-3} \text{ miles}) \times (6.45 \times 10^{10} \text{ miles}) =$$

$$(6.022 \times 10^{23} \text{ ml}) / (3.011 \times 10^{-56} \text{ feet}) =$$

$$(1.05 \times 10^{-26} \text{ J}) / (4.2 \times 10^{56} \text{ }^\circ\text{C}) =$$