Even More Problems for Dimensional Analysis

Geology 1P   Mr. Traeger

Name: _____   Period: _____   Date: _____

Work the following problems using dimensional analysis/factor label method. **You absolutely must show your work!** Use the conversion tables given on your metric mayhem worksheet. The answers are given. **Show how we get these answers using the factor label method and express your answer in scientific notation**.

1. Mount Everest, the tallest mountain in the world, is 29,035 feet above sea level. How tall is Mt. Everest in millimeters? Correct answer is 8,849,868 mm.

2. A typical soda pop drink has a volume of 355 mL. How many gallons is this? Correct answer is 0.09378108 gal.

3. A Nimitz class aircraft carrier displaces about 104,112 short tons of water? How many grams of water does a Nimitz class aircraft carrier displace? Correct answer is 94,448,820,000 g.

4. If there are approximately 6 trillion (6×10^{12}) miles in one light year, how far away is a star that is 4.3 light years? Express your answer in centimeters. Correct answer is 4,068,027,000,000,000,000 cm.

5. Los Angeles is moving towards San Francisco at a rate of about 5 centimeters/year? Yes, it really is! How fast is this in miles/hour? Correct answer is 0.0000000036 miles/hour.