

Scientific Methods Science Department	<h1 style="margin: 0;">Dimensional Analysis Quiz</h1>	Name: _____ Date: _____
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1. (5 points) Name the one SI base unit that is also used in USCS.

2. (15 points **each**) Convert each of the following to **reasonable** SI units:
 - a) 3000 grams

 - b) 0.007 newtons

 - c) 45,000,000 centimeters

3. (25 points) What is the mass of a 5 pound bag of flour in **reasonable** SI units? Show work to support your answer (**no work = no credit**).

4. (25 points) How many fluid ounces are there in a 2-liter bottle of soda? Show work to support your answer (**no work = no credit**).

5. (0 points, but you get 0% if you skip this question.) Predict your score (e.g., 75%) on this quiz.

USCS \square SI Conversion Factors

1 inch = 2.54 centimeters (exactly)
 1 mile \approx 1.609 kilometer
 1 liter \approx 1.056 quarts
 1 kilogram \approx 2.205 pounds (lbs.)
 1 pound \approx 4.448 newtons

USCS Conversion Factors (all exact)

1 gallon = 4 quarts (qt.)
 1 quart = 2 pints
 1 pint = 2 cups
 1 cup = 8 fluid ounces (fl. oz.)
 1 pound = 16 ounces (oz.)