

Ma 083 ~ Measurement PreTest Study Guide

For this test, you will have to demonstrate proficiency in the following skills:

- Choosing which metric measurement would be appropriate to use to measure given objects (would you use kilometers or centimeters to measure a pencil?)
- Converting measurements* from metric to metric (Ex: meters to centimeters)
- Converting measurements* from U.S. standard to U.S. standard (Ex: quarts to gallons or square feet to square yards—hint: there are more than 3 square feet in a square yard!)
- Converting measurements* from U.S. standard to metric and vice versa (Ex: pounds to kilograms)
- Changing numbers to Scientific Notation and back (Ex: $5.4 \times 10^5 = 540,000$)
- Applying any of the above to a real-world situation

**A note on converting measurements: Below is a list of unit conversion numbers. You may print this out or have it open while taking tests and quizzes in this module. Of course, it is always allowed and appropriate to use a calculator to help you reach the correct answer. However, it is NOT allowed in this module to use any kind of “unit converter” whether online or on your calculator. The big idea in this module is deciding whether you need to multiply or divide by the unit conversion number, and you will never learn this by letting the computer do it for you!*

Handy Knowledge	
Time	60 seconds = 1 minute 60 minutes = 1 hour 24 hours = 1 day 7 days = 1 week 365.25 days = 1 year 12 months = 1 year 52 weeks = 1 year 100 years = 1 century
Length	12 inches = 1 foot 3 feet = 1 yard 5,280 feet = 1 mile 1 inch = 2.54 centimeters 1 yard = 0.91 meters 1 mile = 1.61 kilometers
Capacity	3 teaspoons = 1 tablespoon 2 tablespoons = 1 fluid ounce 8 fluid ounces = 1 cup 2 cups = 1 pint 2 pints = 1 quart 4 quarts = 1 gallon 1 gallon = 3.79 liters
Weight	16 ounces = 1 pound 2,000 pounds = 1 ton 1 kilogram = 2.2 pounds
Metric Prefixes	kilo ~ hecto ~ deka ~ unit ~ deci ~ centi ~ milli