

Name \_\_\_\_\_  
Physics  
Period \_\_\_\_\_



Date \_\_\_\_\_  
Measure & Math WS #2H  
Mrs. Nadworny

## Dimensional Analysis

**Directions:** Read online textbook pages 10 – 14 & 22 – 25 and solve the following problems using correct scientific notation and dimensional analysis.

To get full credit on this assignment, you must show all of your work using the method learned in class. Simply putting an answer will earn NO credit.

1. Which is greater: 25 kilograms or 2500 grams? [Show a conversion from kg to g or g to kg]
2. Which is greater: 45.0 miles or 65 kilometers? [Show a conversion from miles to km or km to miles.]
3. Using dimensional analysis, convert 35 miles/hour into meters/second.
4. Using dimensional analysis, convert 6.13 kilobytes into millibytes.
5. Using dimensional analysis, convert 866.1 centimeters into yards.
6. Using dimensional analysis, convert 34.9 kilograms into pounds.

Answers in size order: 9.472 or 9.527, 16,  $6.13 \times 10^6$