Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_ Period \_\_\_

Conversion Problems for BEGINNERS

|  |  |
| --- | --- |
| Given Equalities | |
| 1,000 meter = 1 kilometer  1 liter = 1000 milliliter  1 kilometer = 0.62 miles | 1,000 gram = 1 kilogram  1 kilogram = 2.2 pounds  1 ounce = 29.6 milliliters |

Show all of your work, including: EQUATION, CONVERSION FACTOR(S), ANSWER WITH UNITS.  
Use the information in the table at the right to  
  
to solve each problem and put a box around each answer.

1. Convert 3.5 miles to kilometers.
2. How many grams are there in 367 kilograms?
3. Determine the number of miles in 7 kilometers.
4. Calculate the number of kilograms that you weigh. Your mass in pounds \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. Boulder is 26 miles from Denver. Determine this distance in meters.
6. A normal soda can is 12 ounces. How many milliliters is this?
7. Calculate the number of liters you are drinking if you drink 2 sodas (24 ounces).

Conversion Problems for Experts (or Close-to-Experts)

|  |  |
| --- | --- |
| 1,000 meter = 1 kilometer  1 cup = 150.0 mL  1 kilometer = 0.62 miles | 1,000 gram = 1 kilogram  1 kilogram = 2.2 pounds  1 ounce = 29.6 milliliters |

Show all of your work, including: EQUATION, CONVERSION FACTOR(S), ANSWER WITH UNITS.  
Use the information in the table at the right and  
  
 what you already know to solve each problem.   
  
Put a box around each answer.

1. I am addicted to tea and must have 3 cups a day. How many liters of tea do I drink in 1.0 day?   
   Hint: 1 cup = 150.0 mL
2. The distance from the earth to the sun is 147,000,000 km. Calculate this distance in feet.
3. If light travels at 300,000,000 m /sec, how long will it take (in sec) for the light to get from the sun to the earth?
4. Convert the time from (3) into years.
5. Ms. Rosenberg has been riding her bike to school three days a week. Her house is 4.50 miles from Littleton High School. If she rides at a speed of 15.0 km / hour, how many minutes does it take for her to get to school?
6. The circumference of the earth is 29,400 miles. How long would it take Ms. Rosenberg to ride around the earth, in days?
7. The average mass of a high school student is 141 pounds. Determine the average mass in grams.