NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date: \_\_\_\_\_\_\_\_\_\_\_\_Period: \_\_\_\_\_\_\_\_\_

**UNIT CONVERSION HOMEWORK**

1. **CONVERT THE FOLLOWING. SHOW ALL PROCEDURE.**
2. If you’re in a car moving at 60 miles an hour, is that faster or slower than 60 feet per second?

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. How much does a 2-liter bottle of soda pop weigh in pounds? (Assume that the pop has the density of water, namely 1 kg/liter, and that the weight of the bottle itself is negligible.) (1 kg = 2.2 lb.)

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. An Englishman returning home from Norway has 860 kroner of pocket money that he never spent. How much is that in pounds?   
   (Assume an exchange of NOK 12.32 = £ 1.00.)

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. In book IV of *The Lord of the Rings*, Frodo and Sam rappel down a cliff, using a rope 30 ells long. How high was the cliff (meters), if the rope nearly reached the bottom?   
   (1 ell = 45in; 12 in = 1 ft; 1 m = 39.37 in.)

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. A Canadian vacationing in the States pays $1.689 a gallon for gasoline. How much would he pay per liter in Canada? (Gasoline is sold by the liter in Canada, as in most countries.) (1 US gal = 3.785 liter; assume a conversion rate of C$ 1.60 to the US dollar.)

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. You buy a 750 ml bottle of rum. How many rum-and-Cokes can you make, using an ounce and a half of rum in each drink? (1 US fluid ounce = 29.57 ml.)

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What is 65 degrees in radian measure? (*pi* radians = 180°.)

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. How many cubic meters are there in a cubic mile? (1 mi = 1609.344 m.)

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. My 1967 *Encyclopædia Britannica* says that Lake Erie has a surface area of 9930 square miles and an average depth of 58 feet. How much water does it hold, in cubic miles? in liters? (1 mi = 5280 ft; 1 liter = 0.001 m³, 1 mi = 1609.344 m and use the answer to the previous problem.)

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Lake Erie has a surface area of 9930 square miles. If an inch of rain falls on the lake one day, how many gallons have been added to its volume? How many liters?   
   (1 mi = 5280 ft; 1 ft = 12 in; 1 US gal = 231 in³; 1 US gal = 3.785 liters.)

ANSWER: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_







