Show All Work To Receive Credit! Conversion factors and prefixes are given below:

 $G = 10^9$, $M = 10^6$, $k = 10^3$, $c = 10^{-2}$, $m = 10^{-3}$, $\mu = 10^{-6}$, $n = 10^{-9}$, 2.54 cm = 1 in, 12 in = 1 ft, 5280 ft = 1 mile, 3 feet = 1 yd, 60 sec = 1 min, 1 hr = 60 min, 1000 mL = 1 L

1. (6.Pts) How many milli-feet are there in 249 kilo-feet?

$$\frac{249 \text{ Kf+} 10^3 \text{ m}}{10^{-3}} = 2.49 \times 10^8 \text{ mft.}$$

2. (4 Pts) Convert each of the following to scientific notation (without the use of prefixes):

a. 89 kilo centi giga dollars =
$$\frac{89 \times 10^{10}}{100}$$
 8.9 $\times 10^{11}$ dollars

b.
$$3.0 \times 10^{10} \frac{10^3}{\text{kilometers}} = 3.0 \times 10^{13}$$
 meters

3. (5 Pts) A car engine size is listed as 240 cubic iches (in³). What would its size be in Liters?

240 in	2.543 cyts	11/1/2	10-3 =	3 93)
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4. (5 Pts) The following measurements were taken for the perimeter of a rectangle. Calculate the perimeter of the rectangle and express the answer with the proper number significant figures. Measurements: 157.32 cm, 158 cm, 25.2 cm, 24.976 cm.

5. (5 Pts) The density of aluminum is 2.70 g/cm³. What would be the volume of 937.2 kg of Al? Be sure to watch the significant figures.

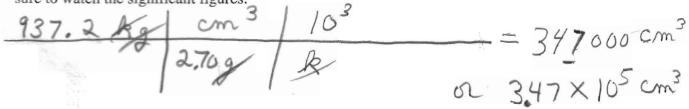
$$\frac{937.2 \text{ kg}}{\text{k}} \frac{10^3}{\text{cm}^3} = 347000 \text{ cm}^3$$

$$\frac{2.70 \text{ g}}{\text{3.47 x}} = 3.47 \text{ x} \frac{10^5 \text{ cm}}{\text{cm}}$$

Show All Work To Receive Credit! Conversion factors and prefixes are given below:

 $G=10^9,\,M=10^6,\,k=10^3,\,c=10^{-2},\,m=10^{-3},\,\mu=10^{-6},\,n=10^{-9},\,2.54\,\,cm=1\,\,in,\,12\,\,in=1\,\,ft,\,5280\,\,ft=1\,\,mile,\,3\,\,feet=1\,\,yd,\,60\,\,sec=1\,\,min,\,1\,\,hr=60\,\,min,\,1000\,\,mL=1\,\,L$

1. (5 Pts) The density of aluminum is 2.70 g/cm³. What would be the volume of 937.2 kg of Al? Be sure to watch the significant figures.



2. (4 Pts) Convert each of the following to scientific notation (without the use of prefixes):

a.
$$33.0 \times 10^{12}$$
 kilometers = 33.0×10^{15} or 3.30×10^{16} meters

$$10^{3}10^{-2}10^{9}$$

b. 889 kilo centi giga dollars = 889×10^{10} or 8.89×10^{12} dollars

3. (5 Pts) A car engine size is listed as 340 cubic iches (in³). What would its size be in Liters?

4. (6 Pts) How many milli-feet are there in 249 kilo-feet?

5. (5 Pts) The following measurements were taken for the perimeter of a rectangle. Calculate the perimeter of the rectangle and express the answer with the proper number significant figures.

Measurements: 156.32 cm, 157 cm, 24.2 cm, 23.976 cm.