

Unit 1 Review

3.45×10^{-2}



1. Convert Scientific notation to Expanded Notation
 - a) 3.8×10^{-3} ft = _____
 - b) 1.7×10^1 km = _____
 - c) 5.4×10^7 mL = _____
 - d) 3.6×10^{-9} g = _____

2. Convert Expanded Notation to Scientific Notation
 - a) 7,640,000 kg = _____
 - b) 0.0009340 cm = _____
 - c) 10 g = _____
 - d) 0.08 = _____
 - e) _____

3. How many cm are in 0.00376 km? (Use your metric knowledge to get the ratio between cm and m and m and km!)

Answer: 376 cm

4. Knowing that 1 lb= 0.454 kg, determine how many grams are in 75 pounds.

Answer: 34,050 g

5. How many m^2 are there in 854 cm^2 ?

Answer: 0.0854 m^2

6. A doctor must administer some chemotherapy to a patient in the form of certain chloroxifin containing pills. The patient requires 3.5×10^{-3} mg of chloroxifin daily. If there are 2.75×10^{-4} mg chloroxifin in one pill, how many pills should the doctor give the patient *in one day*?

Answer: 13 pills

7. Calculate the density of a substance that weighs 35.00 g and has a volume of 12.3 mL.

Answer: 2.85 g/mL

Name: _____ Per _____

8. What is the mass of an object with a density of 3.7 g/cm^3 and a volume of 1.3 mL ?

Hint: $1 \text{ cm}^3 = 1 \text{ mL}$

Answer: 4.81 g

9. What is the volume of 27 g of mercury ($d=13.5 \text{ g/mL}$)?

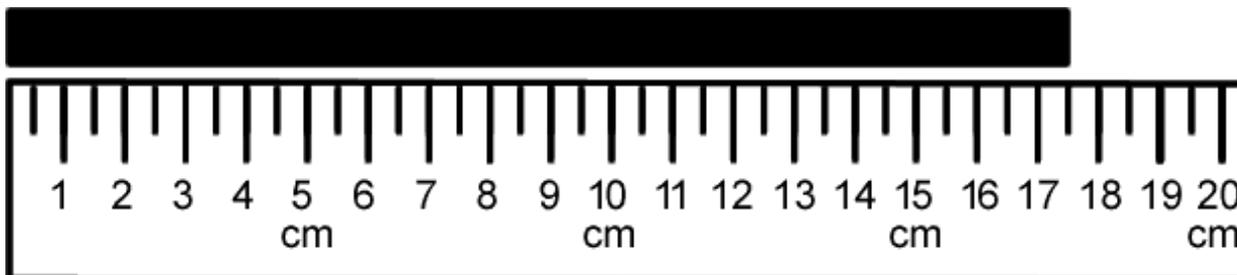
Answer: 2.0 mL

10. Use the concept of density to explain why balloons filled with Helium (He) float in air, where as a balloon that you fill with air will sink?

11. Convert the following temperatures.

	Fahrenheit (F)	Celsius (C)	Kelvin (K)
a		32	
b	98		
c			373
d		100	

Increment: _____ Value _____



Increment: _____ Value _____

