

Measurement HW - 1

Name:

	Measurements	Define these words	example
1	Quantitative		
2	Qualitative		
3	Accurate		
4	Precise		

	symbol	name	density g/cm <sup>3</sup>
Here are 6 elements: platinum, mercury, lead, titanium, niobium, & silver.  Put them in DENISTY ORDER, lowest to highest. Use table S (don't just guess)			

Write a word, or a short sentence, using just the element symbols from the periodic table. Example:

TeAcHER is made from elements # 52, 89, 1, and 68.

1. A piece of unknown metal is determined to have a volume of 84.6 mL and a total mass of 752.94 grams. Determine which metal it could be. Write a formula first, use units!!! Watch out for SF!
  
2. Convert 114°C to Kelvin. Write a formula or it's wrong.
  
3. Convert 28.0°C Kelvin also. Write a formula or it's wrong.
  
4. Convert 370. Kelvin to centigrade. Write a formula or it's wrong.
  
5. Convert 239 K to °C also. Write a formula, or it's wrong.

How many SF in each of the measurements below? Write the number, or UN for unlimited SF in each box

10 grams	20. mL	30.0 Qts	40.1 grams
50.01 kg	0.80 meters	1.09 atm	70.0 grams/cm <sup>3</sup>
60.0009 grams	400 miles	6.02 x 10 <sup>23</sup> atoms	The quotient of 3.45 grams and 6.003 cm <sup>3</sup>
3.0 x 10 <sup>-22</sup> moles of H <sup>+</sup>	The product of 333.45 miles and 6.30 hours	The sum of 34.5 grams and 20. grams	The difference between 88.3°C and 36.3°C

Show all work Write big enough to see. Watch out for SF.

$\begin{array}{r} 4.0 \times 10^4 \\ \times 6.0 \times 10^5 \\ \hline \end{array}$	$\begin{array}{r} 4.8 \times 10^3 \\ - 2.2 \times 10^2 \\ \hline \end{array}$	$\begin{array}{r} 1.4 \times 10^{-5} \\ \times 5.67 \times 10^{-6} \\ \hline \end{array}$
$(6.0 \times 10^{15}) \div (4.0 \times 10^4) =$	$(3.40 \times 10^{-3}) + (2.1 \times 10^{-2}) =$	$\begin{array}{r} 5.60 \times 10^{12} \\ \times 7.102 \times 10^4 \\ \hline \end{array}$
$\begin{array}{r} 2.456 \times 10^7 \\ + 6.034 \times 10^8 \\ \hline \end{array}$	$(3.04 \times 10^5) \div (9.89 \times 10^2) =$	<p>You have measured the mass of carbon to be 849.9 g but the actual mass is 860.0 grams. What was your percent error?</p>

Measurement HW 4

Name \_\_\_\_\_

Write BIG, write neat, show ALL UNITS. **Write answers in scientific notation.** Use units!

1. You measure your height to be 68.4 inches, but your teacher wants you to convert that using dimensional analysis into your height in MILES. (this is a small number) Use units I gave you - stay off of the internet!
2. You watched the women's marathon Olympic race and realized your true calling. You too want to run 26.2 miles at once, and get to wear the cute wreath on your head when you win. Convert that distance to millimeters using proper sig figs.
3. A large hole was dug by a person with a bull dozer. It filled up with 379,300 gallons of rain over the past year. How many milliliters of water is that? (0.946 Liters = 1 quart)