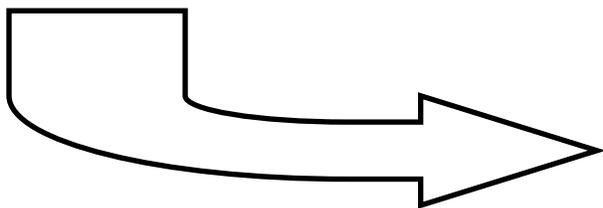


1. In your own words, describe the differences between qualitative and quantitative measures. Give an example of each that does not pertain to your teacher's mass.

2. Explain the difference between the words accurate and precise.

3. Put these chemical symbols in density order, with the lowest density element at the top:

platinum, mercury, lead, titanium, niobium, and silver



symbol	name	density g/cm <sup>3</sup>

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

TeAcHER is element # 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.

$(4.0 \times 10^4) \times (6.0 \times 10^5) =$	$(4.8 \times 10^3) \div (2.2 \times 10^2) =$	$(1.4 \times 10^{-5}) \times (5.67 \times 10^{-6}) =$
$(6.0 \times 10^{15}) \div (4.0 \times 10^4) =$	$(3.40 \times 10^{-3}) + (2.1 \times 10^{-2}) =$	$(5.60 \times 10^{12}) \times (7.102 \times 10^4) =$
$(2.456 \times 10^7) + (6.034 \times 10^8) =$	$(3.04 \times 10^5) \div (9.89 \times 10^2) =$	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? Explain why your answer is positive or negative.

