

Show all your calculations and use the correct number of significant figures.

1. Record the mass of the aluminum foil. 
2. How many moles of aluminum are in the foil?

3. Subtract the mass of the bottle to find the mass of the acetone. (acetone is CH_3COCH_3) 
4. How many moles of acetone molecules are in this sample?
5. How many moles of carbon are in this amount of acetone?

6. Subtract the mass of the empty container to find the mass of a teaspoon of sugar. (sugar is $\text{C}_{12}\text{H}_{22}\text{O}_{11}$) 
7. How many moles of sugar molecules are in this sample?
8. How many oxygen atoms are in this amount of sugar?

9. Recordd the mass of the amethyst. (amethyst is SiO_2)
10. How many moles of silicon are in the amethyst crystal?



11. Record the mass of the sample of fluorite. (fluorite is CaF_2)
12. How many fluorine atoms are in this sample?

