

## **Fun-Time Mole Conversion**

*Directions:* For each of the following, SHOW ALL WORK and make the appropriate conversions.

1. What is the mole conversion statement for barium bromide ( $\text{BaBr}_2$ )? In other words, how many grams are equal to how many moles are equal to how many representative particles? Just one hint: always do these by starting with one mole.
2. What is the mole conversion statement for carbon dioxide ( $\text{CO}_2$ )?
3. What is the mole conversion statement for potassium?
4. How many moles are there in a sample of 64.1 g of barium bromide?
5. A sample of 28.1 g of K has how many moles?
6. If there are 850.5 grams of carbon dioxide, how many moles exist?
7. I count out  $1.5 \times 10^{24}$  atoms of potassium. How many grams do I have?

8. BJ has some  $\text{CO}_2$ , but he's trying to keep it on the DL. While watching CSI on CBS last Sun., he notices that he has 130.7 grams of the gas.
- What is the GFM of his gas?
  - How many representative particles does he have?
9. Melanie has 5,700,000,000,000,000,000 f.u.'s of barium bromide. How much mass does she have?
10. What is the molar mass of iron(III) oxide? The formula is  $\text{Fe}_2\text{O}_3$ . Use this mass to find the number of f.u.'s in 500. g of the same compound.