

Unit 5, Video 10: Mole Conversions

1. What are the units for molar mass?
2. Where do you find the molar mass of an element?
3. Answer each of the following questions. Be sure to show your work including the conversion factors necessary to solve each problem.
 - a. How many grams of lead are in 1.42 moles of lead?
 - b. How many moles of zinc are in 5.78 grams of zinc?
 - c. How many atoms are in an aluminum can with a mass of 14.1 grams?
 - d. How many grams are in a sample of copper containing 1.25×10^{14} atoms of copper?
4. Look over the conversion factors you used in question 3 above. What unit appears in every conversion factor?
5. For all of the conversion factors you used in question 3 above, what number was always written beside the unit of moles?
6. Describe how to determine which number should be on the top of a conversion factor.