Mole Practice Sheet Key

1. Calculate the mass of 2.99 moles of gold (Au)
2. Calculate the number of atoms of gold in 5.31 moles of gold.
3. Calculate the molar mass of benzaldehyde (C7H6O)
4. Calculate the number of moles of benzaldehyde in 76.1 grams of benzaldehyde.
5. Calculate the number of atoms of carbon in 6.00 g of benzaldehyde.

or

1. Determine the empirical formula of methyl butyrate, the flavor of apples. It is composed of 58.80% C, 9.87% H, and 31.33% O.
2. A compound has an empirical formula of C6H7N and a molar mass of 570.8.5 g/mol. What is the molecular formula of the compound?

Molar mass of C6H7N = 6(12) + 7(1) + 16 = 95 g/mol

There are 570/95 or 6 units of this in the compound

Molecular formula = C36H42N6