

MOLE PROBLEMS

1. How many moles of copper are in 6,000,000 atoms of copper?
2. How many atoms are in 5 moles of silver?
3. How many atoms of gold are in 1 gram of gold?
4. How many moles of sulfur are in 53.7 grams of sulfur?
5. How many grams is a sample containing 2.71×10^{24} atoms of iron?
6. How many moles of lithium (Li) are in 1 mole of lithium hydride (LiH)?
7. How many moles of oxygen (O) are in 1 mole of calcium carbonate (CaCO_3)?
8. How many atoms of hydrogen are in 1 mole of water (H_2O)?
9. How many atoms of oxygen are in 2 moles of O_2 ?
10. How many moles of oxygen are in 2.71×10^{25} molecules of carbon dioxide (CO_2)?

Answers

1. 9.96×10^{-18} moles of copper
2. 3.01×10^{24} atoms of silver
3. 3.06×10^{21} atoms of gold
4. 1.67 moles of sulfur
5. 251.33 grams of iron.
6. 1 mole of lithium
7. 3 moles of oxygen
8. 1.20×10^{24} atoms of hydrogen
9. 2.41×10^{24} atoms of oxygen
10. 90 moles