U3-LM1B-WS The Mole

1. The mole is _____ units.
2. One mole of books is _____.
3. One mole of apples is _____.
4. One mole of neon gas is _____.
5. One mole of water is _____.
6. One mole of gold is _____.
7. One mole of oxygen is _____.
8. One mole of potassium bromide (KBr) is _____.

9. The atomic mass of carbon is approximately 12.0 amu. It represents the mass of ____ carbon atom(s).

10. If we express the atomic mass of one mole of carbon in grams, it will represent the mass of _____ atoms of carbon and will be referred to as the _____ of carbon.

11. The formula weight of methane, CH_4, is about 16.0 amu. It represents the mass of one _____of methane. If we express the formula weight of methane in grams, it will represent the mass of _____of methane. This is the _____ of methane.

12. One mole of laughing gas, N_2O consists of _____ atoms of nitrogen and _____atoms of oxygen.

13. Given a beaker containing 42.9 moles of octane, C_8H_{18}, determine:

    a. The number of moles of C in the sample

    b. The number of atoms of C in the sample

    c. The number of moles of H in the sample

    d. The number of atoms of H in the sample.