



The Mole Concept

Independent Practice

4. What is the mass in grams of 2.50 mol of oxygen gas, O_2 ?

80.0g

5. How many molecules are there in 90.078g of $C_6H_{12}O_6$?

3.0100×10^{23} molecules $C_6H_{12}O_6$

6. How many molecules are there in 396.42g of ammonium sulfate, $(NH_4)_2(SO_4)$?

1.8060×10^{24} FU $(NH_4)_2SO_4$

7. What is the mass in grams of 3.01×10^{24} molecules of diphosphorus pentoxide?

P_2O_5

710. g P_2O_5

8. How many moles of $Ca(OH)_2$ in 2.107×10^{24} formula units of $Ca(OH)_2$?

3.500 mol $Ca(OH)_2$

9. How many **chloride ions** in 380.844g of $MgCl_2$? (hint: how many chloride ions are in 1 molecule of chloride?)

4.816×10^{24} a Cl