

Name _____ Section _____ Date _____

The Mole

1. Find the molar mass and formula mass of
 - a. $\text{C}_2\text{H}_2\text{F}_4$.
 - b. $\text{Mg}(\text{OH})_2$

2 a. Convert 0.225 mole of glucose ($\text{C}_6\text{H}_{12}\text{O}_6$) to molecules.

b. How many atoms of carbon are contained in the 0.225 mole sample of glucose?

c. How many moles of hydrogen are contained in the 0.225 mole sample of glucose?

d. Find the percent by mass carbon in glucose

Hint: $\text{mass \% of C} = \frac{\text{mass of carbon in one mole of glucose}}{\text{mass of one mole of glucose}} \times 100\%$

4. Convert 53.8 grams of MgI_2 to moles MgI_2 .

5. Convert 0.00278 mole H_2O to grams.

Answers: 1) 102 g, 102 amu, 58.3 g, 58.3 amu; 2) a. 1.36×10^{23} molecules, b. 8.16×10^{23} , c. 2.70, d. 40%, 3) 0.193 mole, 4) 0.0501 g