Moles Homework

1. Find the mass of 0.89 mol of $CaCl_2$

2. A bottle of $PbSO_4$ contains 158.1 g of the compound. How many moles of $PbSO_4$ are in the bottle?

3. Find the mass of 1.112 mol of HF.

4. Determine the number of moles of C_5H_{12} that are in 362.8 g of the compound.

5. Find the mass of 0.159 mol of SiO_2.

6. You are given 12.35 g of $C_4H_8O_2$. How many moles of the compound do you have?

7. Find the mass of 3.66 mol of N_2.

8. A bottle of $KMnO_4$ contains 66.38 g of the compound. How many moles of $KMnO_4$ does it contain?

9. Determine the number of atoms that are in 0.58 mol of Se.

10. How many moles of barium nitrate contain 5.38×10^{24} formula units?

11. Determine the number of atoms that are in 1.25 mol of O_2.

12. How many moles of magnesium bromide contain 5.38×10^{24} formula units?

13. Determine the number of formula units that are in 0.688 mol of $AgNO_3$.

14. How many moles of ethane (C_2H_6) contain 8.46×10^{24} formula units?

15. Determine the number of formula units that are in 1.48 mol of NaF.

16. How many formula units are in 3.5 g of NaOH?

17. If you burned 6.10×10^{24} molecules of ethane (C_2H_6), what mass of ethane did you burn?

18. How many formula units are in 5.1 g of TiO_2?

19. What is the mass of 3.62×10^{24} molecules of methanol (CH_3OH)?

20. How many formula units are in 1.4 g of $PbCl_2$?

21. Determine the mass of 2.94×10^{24} molecules of decane ($C_{10}H_{22}$).

22. How many formula units are in 5.6 g of H_2S?