

Molar Mass of Compounds

(aka molecular mass or formula mass)

Calculate the formula mass of the compounds listed below. Make sure that all work and units are shown. Write the correct formula first when necessary.

1. CO_2 $1\text{C} = 12.01\text{g}$ $2\text{O} = \underline{32.00\text{g}}$ 44.01g CO_2	7. Ammonium Sulfate <u>$(\text{NH}_4)_2(\text{SO}_4)$</u> $(\text{NH}_4)^{+1} (\text{SO}_4)^{-2}$ $2\text{N} = 28.02\text{g}$ $8\text{H} = 8.08\text{g}$ $1\text{S} = 32.06\text{g}$ $4\text{O} = \underline{64.00\text{g}}$ $132.16\text{g}(\text{NH}_4)_2(\text{SO}_4)$
2. Fe_2O_3 $2\text{Fe} = 111.70\text{g}$ $3\text{O} = \underline{48.00\text{g}}$ $159.70\text{g Fe}_2\text{O}_3$	8. Diphosphorous Pentoxide <u>P_2O_5</u> $2\text{P} = 61.94\text{g}$ $5\text{O} = \underline{80.00\text{g}}$ $141.94\text{g P}_2\text{O}_5$
3. $\text{Ca}_3(\text{PO}_4)_2$ $3\text{Ca} = 120.24\text{g}$ $2\text{P} = 61.94\text{g}$ $8\text{O} = \underline{128.00\text{g}}$ $310.18\text{g Ca}_3(\text{PO}_4)_2$	9. Sulfuric Acid <u>H_2SO_4</u> $2\text{H} = 2.02$ $1\text{S} = 32.06\text{g}$ $4\text{O} = \underline{64.00\text{g}}$ $98.08\text{g H}_2\text{SO}_4$
4. Calcium Oxide <u>CaO</u> $1\text{Ca} = 40.08\text{g}$ $1\text{O} = \underline{16.00\text{g}}$ 56.08g CaO	10. Lead (II) Sulfate <u>PbSO_4</u> $\text{Pb}^{+2} (\text{SO}_4)^{-2}$ $1\text{Pb} = 207.20\text{g}$ $1\text{S} = 32.06\text{g}$ $4\text{O} = \underline{64.00\text{g}}$ 303.26g PbSO_4
5. Potassium Carbonate <u>K_2CO_3</u> $\text{K}^{+1} (\text{CO}_3)^{-2}$ $2\text{K} = 78.20\text{g}$ $1\text{C} = 12.01\text{g}$ $3\text{O} = \underline{48.00\text{g}}$ $138.21\text{g K}_2\text{CO}_3$	11. Nitric Acid <u>HNO_3</u> $1\text{H} = 1.01\text{g}$ $1\text{N} = 14.01\text{g}$ $3\text{O} = \underline{48.00\text{g}}$ 63.02g HNO_3
6. Calcium Phosphate <u>$\text{Ca}_3(\text{PO}_4)_2$</u> $\text{Ca}^{+2} (\text{PO}_4)^{-3}$ $3\text{Ca} = 120.24\text{g}$ $2\text{P} = 61.94\text{g}$ $8\text{O} = \underline{128.00\text{g}}$ $310.18\text{g Ca}_3(\text{PO}_4)_2$	12. Zinc Chloride <u>ZnCl_2</u> $\text{Zn}^{+2} \text{Cl}^{-1}$ $1\text{Zn} = 65.38\text{g}$ $2\text{Cl} = \underline{70.90\text{g}}$ 136.28g ZnCl_2