

Name: _____

MOLAR MASS - MOLE TO GRAMS WORKSHEET - EVEN ANSWERS

What is the molar mass of the following compounds.

1. NaOH =

2. AgCl = (107.9 g) + (35.45 g) = 143.32 grams / mol

3. CrCl₃ =

4. Ba(OH)₂ = (137.33 g) + (2)(16.00 g) + (2)(1.008 g) = 171.346 grams / mol

5. AgNO₃ =

6. KIO₃ = (39.10 g) + (126.91 g) + (3)(16.00 g) = 214.01 grams / mol

7. C₃H₈ =

8. Pb(CN)₂ = (207.2 g) + (2)(12.01 g) + (2)(14.01 g) = 259.24 grams / mol

How many grams are in each of the following mole amounts?

1. 1.60 moles Hg(NO₃)₂

2. $\frac{0.68 \text{ mol Ni}(\text{BrO}_3)_2}{1 \text{ mol Ni}(\text{BrO}_3)_2} \times \frac{314.43 \text{ grams}}{1 \text{ mol Ni}(\text{BrO}_3)_2} = 214 \text{ grams}$

3. 15 moles Ni(NO₃)₂

4. $\frac{0.47 \text{ mol CsIO}_3}{1 \text{ mol CsIO}_3} \times \frac{307.82 \text{ grams}}{1 \text{ mol CsIO}_3} = 145 \text{ grams}$

5. 3.75 moles Fe₃(PO₄)₂

6. $\frac{14.3 \text{ mol AgNO}_3}{1 \text{ mol AgNO}_3} \times \frac{169.88 \text{ grams}}{1 \text{ mol AgNO}_3} = 2.43 \times 10^3 \text{ grams}$

How many moles are in each of the following gram amounts?

1. 64.0 g H₂O

$$2. \frac{132.0 \text{ g } C_2H_6}{30.048 \text{ grams}} \times \frac{1 \text{ mol } C_2H_6}{1 \text{ mol } C_2H_6} = 4.39 \text{ mol } C_2H_6$$

3. 195.0 g Pb(NO₃)₂

$$4. \frac{48 \text{ g } NH_4OH}{35.05 \text{ grams}} \times \frac{1 \text{ mol } NH_4OH}{1 \text{ mol } NH_4OH} = 1.37 \text{ mol } NH_4OH$$

5. 500.0 g Ag₂CO₃

$$6. \frac{164.0 \text{ g } Pb(C_2H_3O_2)_2}{325.288 \text{ grams}} \times \frac{1 \text{ mol } Pb(C_2H_3O_2)_2}{1 \text{ mol } Pb(C_2H_3O_2)_2} = 0.504 \text{ mol } Pb(C_2H_3O_2)_2$$