

Name _____

More Moles

Solve the following problems: Grams to moles, moles to grams

1. 5.5 moles of C = _____ g C
2. 28.7 g of Ar = _____ moles Ar
3. 34.7 g of Ni = _____ moles Ni
4. 0.00621 moles of K_2S = _____ g K_2S
5. 64.85 g of Cu = _____ moles Cu
6. 198.55 g of Fe = _____ moles Fe
7. 3.75 moles of $FeCl_3$ = _____ g $FeCl_3$
8. 30.6 moles of $BaSO_4$ = _____ g $BaSO_4$
9. 0.847 moles of $CuNO_3$ = _____ g $CuNO_3$
10. 50.51 g of Zn = _____ moles Zn

Solve the following problems: All of the following are at STP conditions.
Liters to moles, moles to Liters

11. 1.25 moles of O_2 gas = _____ L of O_2 gas
12. 0.75 moles of HCl gas = _____ L of HCl gas
13. 5.67 Liters of CO_2 gas = _____ moles of CO_2 gas
14. 46.75 Liters of C_4H_9O gas = _____ moles of C_4H_9O gas
15. 4.35 moles of N_2 gas = _____ L of N_2 gas
16. 0.35 moles of HF gas = _____ L of HF gas
17. 7.11 moles of PbI_2 gas = _____ L of PbI_2 gas
18. 137.8 Liters of $BaNO_3$ gas = _____ moles of $BaNO_3$ gas
19. 675 Liters of $KMnO_4$ gas = _____ moles of $KMnO_4$ gas
20. 1300 Liters of H_2 gas = _____ moles of H_2 gas

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Moles

1. Find the mass of 0.98 mol of CaCl_2 .
2. A bottle of PbSO_4 contains 158.1g 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 362.8g of the compound.
5. Find the mass of 0.159 mol of SiO_2 .
6. You are given 12.35g of $\text{C}_4\text{H}_8\text{O}_2$. 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 66.38g 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 (BaNO_3) contain 55.4 grams?
11. Determine the number of atoms that are in 1.25 mol of O_2 .
12. How many moles of magnesium bromide (MgBr_2) are contained in 5.38 liters at STP?