

Name: _____

Block: _____

Mole Conversions

Note: Some of these are the same compounds as in the “Molar Mass” worksheet, so you can use the formula weights from that worksheet as the starting point for your calculations.

1. How many moles are in 72.9 g of HCl?
2. How many moles are in 79.85 g Fe_2O_3
3. How many moles are in 11.2 ℓ of CO_2 gas at S.T.P.?
4. How many molecules are in 720 g of $\text{C}_6\text{H}_{12}\text{O}_6$?
5. How many grams are in 3.5 mol of $\text{Ca}_3(\text{PO}_4)_2$?
6. How many grams are in 0.275 mol of UOCl_2 ?
7. What is the volume of 1.35 mol of Cl_2 gas at S.T.P.?
8. How many grams are in 3.01×10^{24} molecules of $(\text{NH}_4)_2\text{SO}_4$?
9. How many molecules are in 85 g of AgNO_3 ?
10. How many grams are in 1.204×10^{24} molecules of CH_3COOH ?

11. Convert 86.84 g of LiBr to moles:

12. Convert 302.7 g of ScCl₃ to moles:

13. Convert 8.8 g of K₂CO₃ to moles:

14. Convert 2.5 g of CuCl₂ to moles:

15. Convert 8.045 g of H₂CO₃ to moles:

16. How many grams of lithium are there in 3.45 moles?

17. How many moles of nitrogen are there in 4.3×10^{23} molecules?

18. How many cadmium atoms are there in 6.57×10^3 moles?

19. How many grams of SO₃ are 4.5×10^{24} molecules?

20. How many copper atoms are in 1 mole of CuO?

21. How many copper atoms are in 5.6 mole of Cu₂O₃?

22. How many grams of sulfur are in 3.45×10^{22} molecules of SO₂?