**Moles Review**

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| 1. Calculate the mass of 1.000 mole of CaCl2  2. Calculate grams in 3.0000 moles of CO2  3. Find the number of particles in 5.06 grams of O2  4. Calculate number of moles in 32.0 g of CH4  5. Determine mass in grams of 40.00 moles of Na2CO3  **6. Calculate the number of atoms in** 2.14 grams of K  7. Calculate moles in 168.0 g of HgS  8. Calculate the number of molecules in 1.058 mole of H2O  9. Find the number of ammonia, NH3, molecules in 3.5 moles of ammonia.  10. Find the number of moles in 2.40 x 1024 particles of silver nitrate  11. Determine the number of moles in 2.4 x 1022 molecules of oxygen gas  12. Calculate moles in 510.0 g of Al2S3  13. How many moles are in 27.00 g of H2O  14. Determine mass in grams of 1.00 mole of C12H22O11  15. Find mass in grams of 9.03 moles of H2S | 16. Calculate the number of moles in 1.20 x 1024 particles of CH4  17. Determine grams in 1.204 mole of NH3  18. Calculate the number of moles in 1.81×1024 of magnesium chloride, MgCl2  19. Find the number of moles in 6.02 x 1023 particles of C6H12O6  20. Find the number of moles in 9.03 x 1023 particles of MgCl2  21. Find the number of grams in 4.5 mol of C  22. Find the number of moles in 1.80 x 1024 particles of zinc sulfate  23. Find the number of particles in 1.5 moles of water, H2O.  24. Calculate the number of molecules in 3.00 moles H2S  25. Find the number of moles in 3.01 x 1023 particles of H2O  26. Calculate the number of atoms in 0.750 mole of Fe  27. Determine the number of atoms in 0.134 **kg** of Li  28. Find the number of moles in 4.4 x 1024 carbon dioxide molecules.  **29. How many grams are in** 7.1 mol of Al  30. Find the mass of 2.2 mol of Mg |

**Answers (in random order)**

0.040 0.500 0.7221 1.00 1.498 1.50 2.00 2.28 3.00 3.01 3.396 3.99 7.3 17.25 5.3× 101 54 111.0 132.03 308 342 1.9 × 102 4240. 3.29 × 1022 9.52 × 1022 2.1 × 1023 4.52 × 1023 6.369 × 1023 9.03 × 1023 1.81× 1024 1.16× 1026

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