**Moles Review**

|  |  |
| --- | --- |
| 1. Calculate the mass of 1.000 mole of CaCl22. Calculate grams in 3.0000 moles of CO23. Find the number of particles in 5.06 grams of O24. Calculate number of moles in 32.0 g of CH45. Determine mass in grams of 40.00 moles of Na2CO3**6. Calculate the number of atoms in** 2.14 grams of K7. Calculate moles in 168.0 g of HgS8. Calculate the number of molecules in 1.058 mole of H2O9. 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 nitrate11. Determine the number of moles in 2.4 x 1022 molecules of oxygen gas12. Calculate moles in 510.0 g of Al2S313. How many moles are in 27.00 g of H2O14. Determine mass in grams of 1.00 mole of C12H22O1115. Find mass in grams of 9.03 moles of H2S | 16. Calculate the number of moles in 1.20 x 1024 particles of CH417. Determine grams in 1.204 mole of NH318. Calculate the number of moles in 1.81×1024 of magnesium chloride, MgCl219. Find the number of moles in 6.02 x 1023 particles of C6H12O620. Find the number of moles in 9.03 x 1023 particles of MgCl221. Find the number of grams in 4.5 mol of C22. Find the number of moles in 1.80 x 1024 particles of zinc sulfate23. Find the number of particles in 1.5 moles of water, H2O.24. Calculate the number of molecules in 3.00 moles H2S25. Find the number of moles in 3.01 x 1023 particles of H2O26. Calculate the number of atoms in 0.750 mole of Fe27. 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 Al30. 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

atoms atoms atoms g g g g g g g g g mole molecules molecules molecules moles moles moles moles moles moles moles moles moles moles moles moles particles particles