Molar Mass

Chemistry Name

**1 How many moles of atoms are contained in the following?**

|  |  |
| --- | --- |
| (a) 22.5 g Zn | (b) 0.688 g Mg |
| (c) 4.5 x 1022 Cu atoms | (d) 382 g Co |
| (e) 0.055 g Sn | (f) 8.5x1024 molecules N2 |

**2 Calculate the number of grams in each of the following:**

|  |  |
| --- | --- |
| (a) 0.550 mol Au | (b) 15.8 mol H2O |
| (c) 12.5 mol Cl2 | (d) 3.15 mol NH4NO3 |

**3. How many molecules are contained in each of the following?**

|  |  |
| --- | --- |
| (a) 2.5 mol S8 | (b) 7.35 mol NH3 |
| (c) 17.5 g C2H5OH | (d) 225 g Cl2 |

**4. How many atoms are contained in each of the following?**

|  |  |
| --- | --- |
| (a) 25 molecules P2O5 | (b) 3.62 mol O2 |
| (c) 12.2 mol CS2 | (d) 1.25 g Na |
| (e) 2.7 g CO2 | (f) 0.25 g CH4 |

**5 125 grams of disulfur decafluoride contains…**

|  |  |
| --- | --- |
| *Before we start, write the formula and molar mass* | (a) how many moles? |
| (b) how many molecules? | (c) how many total atoms? |
| (d) how many atoms of sulfur? | (e) how many atoms of fluorine? |