

## CHEM-1094

## MOLE PRACTICE

1. Do the following calculations:
  - a) Number of moles in 17.7 g of H<sub>2</sub> **(8.85)**
  - b) Number of grams in 0.20 moles of F<sub>2</sub>. **(7.6)**
  - c) Number of molecules in 0.50 moles of H<sub>2</sub>S. **(3.01x10<sup>23</sup>)**
  - d) Number of atoms in 0.70 moles of Br<sub>2</sub>. **(8.4x10<sup>23</sup>)**
  - e) Number of moles of Na<sup>+</sup> in 1.50 moles of Na<sub>2</sub>O. **(3.00)**
  - f) Number of moles of O atoms in 100.1 g of CaCO<sub>3</sub>. **(3.00)**
  - g) Number of C atoms in 12.0 g of C<sub>12</sub>H<sub>26</sub>. **(5.1x10<sup>23</sup>)**
  - h) Number of moles of F<sup>-</sup> in 39.0 g of CaF<sub>2</sub>. **(1.00)**
  - i) Number of moles of ions in 0.25 moles of (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>. **(0.75)**
  - j) Number of moles of O atoms in 8.00 g of oxygen gas. **(0.50)**
2. Perform the following calculations for 6.84 g of C<sub>12</sub>H<sub>22</sub>O<sub>11</sub>, sucrose.
  - a) Number of moles of sucrose. **(0.0200)**
  - b) Number of moles of carbon. **(0.240)**
  - c) Number of moles of hydrogen gas. **(0.22)**
  - d) Number of H atoms. **(2.65x10<sup>23</sup>)**
  - e) Number of moles of O atoms. **(0.22)**
  - f) Number of O atoms. **(1.32x10<sup>23</sup>)**
  - g) Number of moles of atoms. **(0.900)**
  - h) Number of atoms. **(5.42x10<sup>23</sup>)**