## Quiz 6.1: Mole Conversions (Practice)

- Don't forget to head your paper.
- For credit, place your answers in the boxes or lines provided. If none, be sure to box your answer.
- You must show all work, using proper dimensional analysis, should you want credit for your answers.
- Don't forget units and to consider significant figures when writing your answer.

1. What is another name for the quantity $6.02 \times 10^{23}$ ?
$\square$
2. Fill in the empty boxes below with the right names of representative particles \& correct molar masses.

| Substance | Representative Particle | Molar Mass |
| :---: | :---: | :---: |
| Ag |  |  |
| $\mathrm{CO}_{2}$ |  |  |
| $\mathrm{Li}_{2} \mathrm{O}$ |  |  |

3. Complete the following mole conversions, being sure to show all work as taught in class and including units. For credit, box your answer and consider significant figures.
a. $2.71 \times 10^{24}$ Formula Units $\mathrm{Ni}\left(\mathrm{ClO}_{4}\right)_{2}=$ $\qquad$ g Ni $\left(\mathrm{ClO}_{4}\right)_{2}$
b. $20.0 \mathrm{~g} \mathrm{C}_{2} \mathrm{H}_{6}=$ _? C atoms
c. $\quad 127.0 \mathrm{~g} \mathrm{Au}=$ _? mol Au
d. $\quad 0.500 \mathrm{~mol} \mathrm{Mg}=\_?$ atoms Mg
