Mole conversion practice

**BOX YOUR FINAL ANSWER w/ UNITS and SIGFIGS**

**Mass (g)**🡪**Moles (mol)**What piece of information do you need in order to convert from Mass to Moles? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. How many moles of echanol (C2H5OH) are represented by 16.0 g of ethanol?
2. How many moles of sodium chloride (NaCl) are in 16.0 grams of NaCl?

**Moles (mol)**🡪**Mass (g)**What piece of information do you need in order to convert from Moles to Mass? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. How many grams of ethanol (C2H5OH) are represented by 4.21 moles of ethanol?
2. How many grams of sodium chloride (NaCl) are in 7.01 x 102 moles of NaCl?

**Number of particles**🡪**Moles (mol)**What piece of information do you need to convert from Number of particles to Moles? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. How many moles of lead (Pb) are in 1.53 x 1043 atoms of Pb?
2. How many moles of sodium chloride (NaCl) are in 7.01 x 103 molecules of NaCl?

**Moles (mol)**🡪**Number of particles**What piece of information do you need to convert from Moles to Number of particles? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. How many atoms of Silicon (Si) are in 1.53 x 10-19 moles of Si?
2. How many molecules of water (H2O) are in 7.01 x 10-13 moles of H2O?

**2-step mole conversions**

* Can you go directly between grams and number of particles (molecules)? \_\_\_\_\_\_\_\_\_\_
* What do you need to convert to first? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
1. How many grams of carbon dioxide (CO2) are in 6.63 x 1023 molecules of CO2?
2. How many molecules of sodium chloride (NaCl) are in 40.6 grams of NaCl?
3. How many grams of water (H2O0 are in 6.63 x 1023 molecules of H2O?