**Unit 5 Notes:**

**Mole 🡨🡪 Particle Conversion**

-A mole is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ similar to a dozen. A dozen is associated

with the number 12 while a mole is associated with the number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

- The number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is also known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ number.

-This number can be used to convert a number of moles into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

-Particles can also be \_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Conversion units:

Because **1 mole= 6.02x1023particles** the following two conversion units can be used when converting between moles and particles:

When you are given a number of moles When you are given a number of particles and you want to find particles use: and you want to find moles use:

This is the same as\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ This is the same as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ by 6.02x1023 by 6.02x1023

Examples:

How many molecules of NaCl is 7.3 moles of NaCl?

How many moles of carbon is 2.43x1022 atoms of carbon?

How many particles of BF3 is 0.025 moles of BF3?

How many moles of Strontium is 3.98 x1024 ions of Strontium?