2.3 Grams, Moles, & Molecules Notes (E)

Which of these 2 ways of counting works better? Why?

Building a bow (bow & arrow) and I have 1 \_\_\_\_\_\_\_\_\_\_\_\_\_ and 1 \_\_\_\_\_\_\_\_\_\_\_\_.

Building a bow (bow & arrow) and I have 1.0 kg of \_\_\_\_\_\_\_ and 1.0 kg of \_\_\_\_\_\_\_\_\_\_\_.

Building a water molecule and I have 2 grams of Hydrogen and 1 gram of Oxygen.

Building a water molecule and I have 2 Hydrogen atoms and 1 Oxygen atom.

**Idea #1**: It is easier to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

How many molecules are in a cup of water?

Mass of water molecule: 2.992 x 10-23 grams.

A cup of water’s mass: 236.6 grams

Number of water molecules in a cup = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Idea #2**: It is easier to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

(We do this with doughnuts! I’d like \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ doughnuts.)

The Mole

A mole is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ particles.

This is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_’s number.

What’s a “particle”?

Look on page \_\_\_\_\_\_\_ to find a comparison of moles. Why are they different sizes?

Why do we need a “mole”?

**Practice Converting**

More practice can be found on pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Grams & Moles

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\*\*Remember, on a quiz you’ll have to figure out which is which!\*\*