Turn In…

- Lab corrections (Inbox)
- SSM Part 5 rough draft (google docs, email or printed)
- Last day for test… TODAY!

A word about homework…

- Any missing assignments due NO LATER THAN MONDAY for credit. Check Aeries tomorrow, if it's not there, I don't have it.

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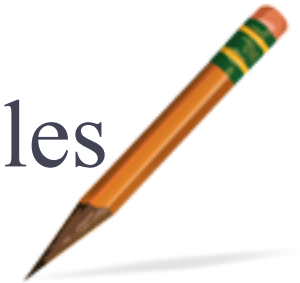
- Homework policy beginning Monday: No Late work

Converting between molecules and moles



- How many molecules of H_2 are in the following reaction:

$$N_2 + 3H_2 \rightarrow 2NH_3$$

Given:
3 mol H_2
1 mol anything = 6.02×10^{23} anything
1 mol H_2 molecules = 6.02×10^{23} H_2 molecules

Find:
_____molecules of H_2

Converting between atoms and moles

- How many atoms of oxygen are produced in the following reaction?

$$2H_2 + O_2 \rightarrow 2H_2O$$

Given:
2 mol water
1 mol anything = 6.02×10^{23} anything
1 mol water molecules = 6.02×10^{23} water molecules
1 oxygen atom = 1water molecule

Find:
_____atoms of oxygen

Molar Mass

Target: Today I will be able to convert from moles of a substance to grams of a substance and back.

Pg. 119

Mole Practice:

- Which takes up more space: A mole of marbles or a mole of bowling balls?

- Which has more mass: A mole of marbles or a mole of bowling balls?

Quickwrite

- Which has more mass: a mole of hydrogen atoms or a mole of oxygen atoms? **(Pg. 114)**

Molar Mass

- **Molar mass** is the mass in grams [g] of 1 mole of a substance.
- It is found on the periodic table.
- Ex: Carbon has a molar mass of 12.01g/mol
  - This means that if you have one mole of carbon atoms (6.022×10^{23} carbon atoms), it will have a mass of 12.01 grams.

Molar Mass

- How much does a mole of hydrogen atoms weigh?
- How much does a mole of xenon atoms weigh?
- How many atoms of sulfur in 32.07g of sulfur?
- How many atoms of gold in 196.97g of gold?

Homework

- SQ3R pg. 82-87 including sample problems. **Pg. 117** Due Monday, Feb 3

- How BIG is a mole assignment. Be prepared to share in class on Monday, Feb 3. **Pg. 116**

Exit Ticket

- Which has a greater mass: a mole of copper atoms or a mole of chlorine atoms?

- Don’t forget your name on the back!