NO NOTEBOOK: WRITE IN THE WARMUP BOX

PURPOSE: USE AVOGADRO'S PRINCIPLE TO SOLVE + FIND FORMULAS OF COMPOUNDS

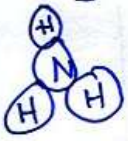
WARMUP COPY THESE IN WARMUP BOX

PH_3

NO

NO_2

NH_3



CO_2

H_2O_2

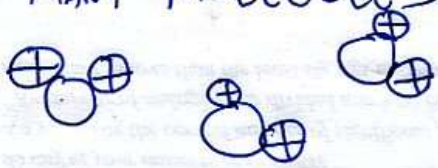
H_2O

NO_2

PH_3 NO

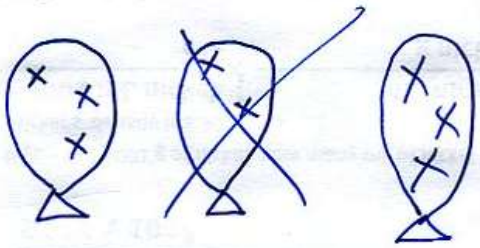
FORMULAS USE A SUBSCRIPT TO SHOW TWO OR MORE ATOMS. IF THERE IS ONLY ONE ATOM, USE NO SUBSCRIPT

HOW MANY MOLECULES & ATOMS?



IS MATTER BEING CONSERVED HERE

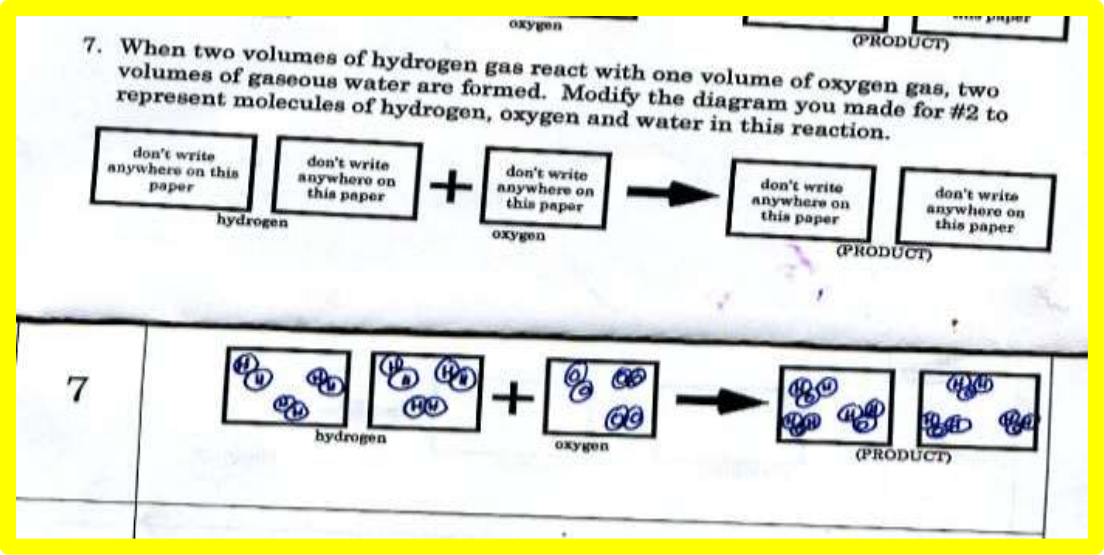
EACH BALLOON / BOX HAS THE SAME NUMBER OF MOLECULES.



Today in class we attempted to follow the two rules shown in the orange box below. It was difficult!

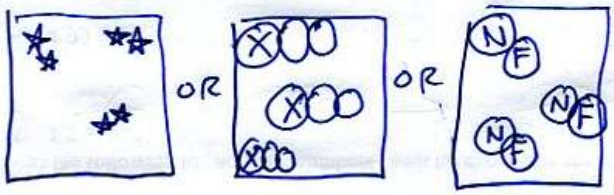
All gas follows these rules :
Avogadro's Principle: Equal sized boxes have the same number of gas molecules.
The Law of Conservation of Mass: Any atoms that exist before the arrow must be the same as the number of atoms after the arrow.
Assume all boxes are the same size.

Here is a correct solution to the hardest problem we did during classwork today. Very few people got this solution correct:



SUGGESTIONS FOR SOLVING TONIGHT'S HOMEWORK.

(1) USE THESE DRAWING STYLES



(2) USE ANY NUMBER OF MOLECULES BUT EACH BOX SHOULD HAVE THE SAME NUMBER OF MOLECULES

(3) DON'T MAKE ATOMS APPEAR OR DISAPPEAR; IF THERE ARE FIVE ⊗ BEFORE THE ARROW THERE SHOULD BE FIVE ⊗ AFTER THE ARROW.

(4) BIG HINT: MANY PROBLEMS ARE EASIER TO SOLVE IF YOU START WITH DOUBLE-ATOMS: OO or FF or HH

RESEARCH SHOWS STUDENTS REMEMBER LONGER IF TEACHERS CREATE PROBLEMS THAT ARE NOT SOLVED RIGHT THE FIRST TIME