**2 Step mole calculations Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

NOTE – on the mole map, there are no direct routes between the outside branches of the map. ALL ROADS GO THROUGH THE MOLE ![C:\Users\cxvanmaarseveen802\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\CYY11DIG\cartoon-mole-13746012[1].jpg]()!!

For example:

* What is the mass of 1.05x1024 molecules of nitrogen trifluoride?
* Find the volume occupied by 440g of carbon dioxide gas at STP.
* Find the volume occupied by 2.4x1025 molecules of water. The density of water is 1.0g/mL.
* A diatomic gas has a density of 1.70g/L at STP. What is the molar mass of the gas? Can you identify the gas?