**2 Step Mole practice**

1. What mass of gold contains the same number of atoms as 1.82g of chlorine?
2. A) how many nitrogen atoms are present in 10.5g of nitrogen

b) how many nitrogen molecules are present in the same sample (as (a))?

3. How many hydrogen atoms are there in 1.38g of methanol (CH3OH)?

4. Find the density of argon gas at STP.

5. Find the volume occupied by 9.5x1021 aluminum atoms (density of Al = 2.70g/cm3)

6. Find the mass of a 44.8dm3 balloon filled with hydrogen gas at STP.

Answers:

1. 10.1g
2. A) 4.51x1023 atoms b) 2.26x1023 molecules
3. 1.04x1023 atoms
4. 1.78g/dm3
5. 0.16cm3
6. 4.04g