WODSS SCIENCE Name: _____

SCH 3UI Date: _____

Molar Mass and the Mole

Molar Mass (M) → _____

Avogadro's number is special because 6.022×10^{23} atoms of an element has a mass in grams that is equal to its atomic mass.

Average atomic mass in u = Molar mass in g/mol

Example 1 Atomic mass Na = _____ Molar Mass of Na = _____

Example 2 Find the molar mass of NaCl:

You can use molar mass to write conversion factors for NaCl:

a) What is the mass of 2.56 mol NaCl?

b) How many mol are in a 35.2 g sample of NaCl?

Example 3 What is the mass of a 0.750 mol sample of CO_2?

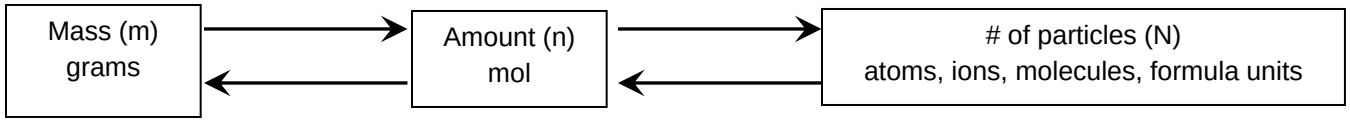
Example 4 How many mol are in a 23.6 g sample of $Mg(NO_3)_2$?

Example 5 What is the mass of 3.67×10^{24} formula units of K_2O?

HW: page 235 Q# 32,33,37,40; page 237 Q# 41,42; pg 239 Q# 51,52 pg 242 Q# 61a,b,62a,b,63,64,66,67

Summary So Far

Name (symbol)	**Unit**
Particle Mass (M)	
Avogadro's Number (N_A)	
Number of particles (N)	
mole (n)	
mass (m)	
Molar Mass (M)	



Equations: