Name _____ Date _____ Class _____

Moles Worksheet

Type of Problem	Start with…	Solve for…	Equality Equation
Mole – Mass	Mole	Mass (g)	Molar Mass: 1 mole = _____ g
	Mass (g)	Mole	Molar Mass: 1 mole = _____ g
Mole – Particle	Mole	Particles (atoms, formula units, or molecules)	Avogadro's Number: 1 mole = 6.02×10^{23} particles (atoms, formula units, or molecules)
	Particles (atoms, formula units, or molecules)	Mole	Avogadro's Number: 1 mole = 6.02×10^{23} particles (atoms, formula units, or molecules)
Mole – Volume	Mole	Volume (L)	Molar Volume: 1 mole = 22.4 L (at STP)
	Volume (L)	Mole	Molar Volume: 1 mole = 22.4 L (at STP)
Mass – Particle	Mass (g)	Particles (atoms, formula units, or molecules)	g → → mol → → particles ↑ Molar Mass: 1 mole = _____ g ↑ Avogadro's Number: 1 mole = 6.02×10^{23} particles
	Particles (atoms, formula units, or molecules)	Mass (g)	particles → → mol → → g ↑ Avogadro's Number: 1 mole = 6.02×10^{23} particles ↑ Molar Mass: 1 mole = _____ g

1. How many moles are present in 34 grams of $Cu(OH)_2$?

   Type of problem? _____ Equality Equation(s) Required? _____

2. How many moles are present in 2.45×10^{23} molecules of CH_4?

   Type of problem? _____ Equality Equation(s) Required? _____

3. How many grams are there in 3.4×10^{24} molecules of NH_3?

   Type of problem? _____ Equality Equation(s) Required? _____