

Name _____ Period _____

College Prep Chemistry of the Earth

Assignment 5I – Molar Volume

20 Points

Define the following gas state of matter terms

Define Volume (L)	Define Molar Volume (22.4L/mol)

Convert the following volume measurements to mol, or mol to volume ($1 \text{ mol A} = 22.4 \text{ L A}$)

Convert 36.4L CO ₂ (g) to mol CO ₂ (g)	
36.4L CO₂	1 mol CO ₂
	22.4 L CO₂
mol CO ₂ (g)	1.63 mol CO ₂

Convert 0.500mol H ₂ (g) to volume H ₂ (g)	
0.500 mol H₂	22.4 L H ₂
	1 mol H₂
volume H ₂ (g)	11.2 L H ₂

Convert 14.5L CH ₄ (g) to mol CH ₄ (g)	
mol CH ₄ (g)	

Convert 1.45mol CO ₂ (g) to volume CO ₂ (g)	
volume CO ₂ (g)	

Convert 34.3L NO ₂ to mol NO ₂	
mol NO ₂ (g)	

Convert 9.23mol SO ₃ (g) to volume SO ₃ (g)	
Volume SO ₃ (g)	

Convert 93.28L NO ₂ to mol NO ₂	
mol NO ₂ (g)	

Convert 2.47 x ^{mol} SO ₃ (g) to volume SO ₃ (g)	
Volume SO ₃ (g)	