Name: _____

Unit 6 - Topic 3

Solution Concentration - *Molarity*

Molarity Ladder

Directions: We are building up to a concept in chemistry known as **molarity**. For this activity, you need to move up the ladder one step at a time. **SHOW YOUR WORK**.

Rung 1: Nomenclature

Name	Formula
	LiClO
Manganese VI oxide	

Rung 2: Formula Mass

Name / Formula	Formula Mass (g/mol)
LiClO	
Manganese VI oxide	

Rung 3: Moles to Grams

Name / Formula	Answer (g)
1.0×10^{3} moles LiClO	
9.5×10^{-3} moles Manganese VI oxide	

Rung 4: Grams to Moles

Name / Formula	Answer (moles)
1.00 g LiClO	
2.3×10^{-6}g Manganese VI oxide	

Name: _____

Rung 5: Molarity

Name / Formula	Molarity (mol/ L)
0.50 moles LiClO in 2.0 L	
25.0 moles Manganese VI oxide in 5.0 L	

Rung 6: Molarity (Convert grams to moles first, then divide by the volume)

Name / Formula	Molarity (mol/L)
1.00 g LiClO in 2.0 L	
2.3×10^{-6} g Manganese VI oxide in 5.0 L	

Rung 7: Molarity (Convert the volume to liters first and then divide the moles by the liters.)

Name / Formula	Molarity (mol/L)
0.50 moles LiClO in 0.025 mL	
25.0 moles Manganese VI oxide in 2.5×10^{4} cm^3	

Rung 8: Molarity to grams (Find the number of moles then convert to grams.)

Name / Formula	Mass of Solute (g)
2.0 L of 0.080 M LiClO	
5.0 L of 5.0 M Manganese VI oxide	

Rung 9: Molarity to Volume (Use the equations to find the volume when everything else is known.)

Name / Formula	Volume of Solution (L)
2.0 moles of 0.080 M LiClO	
5.0 mols of 5.0 M Manganese VI oxide	