G.U.E.S.S.S. METHOD

STEP 1: Identify your starting value and its units (**G**iven)

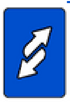
STEP 2: Identify what you are trying to find, include units (**U**nknown)

STEP 3: Balanced chemical (**E**quation)

STEP 4a: Identify the conversion factors (**S**et-up)

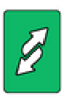
Mole-O Conversion Factors

1. **Molar Mass**



1 mole **(same substance)** = grams (molar mass) **(same substance)**

2. **Avogadro's Number**



1 mole **(same substance)** = 6.022 x 10^{23} atoms **(same substance)**
1 mole **(same substance)** = 6.022 x 10^{23} particles **(same substance)**
1 mole **(same substance)** = 6.022 x 10^{23} molecules **(same substance)**
1 mole **(same substance)** = 6.022 x 10^{23} formula units **(same substance)**

3. **Mole to mole**

coefficient mole reactant A = coefficient mole reactant B (different substance)
coefficient mole product A = coefficient mole product B (different substance)
coefficient mole reactant A = coefficient mole product B (different substance)

STEP 4b: Dimensional Analysis

Given	New Unit	= Unknown
	Given Unit	

Conversion Factor

STEP 5: Do the math! (**S**olve)

- multiply everything across the top (numerator)
- multiply everything across the bottom (denominator)
- divide the fraction to get the answer