

Molarity

$$M = \frac{\text{moles Solute}}{\text{L of solution}}$$

→ solute + solvent

Purple Kool Aid
 → 538g C₆H₁₂O₆
 2 gallons

Regular strength

$$1 \text{ gallon} = 3.79 \text{ L}$$

Make 100ml !

① Find M of Regular Strength Kool-Aid

538g C₆H₁₂O₆	1gal	1 mole C ₆ H ₁₂ O ₆
2 gallons	3.79L	180g C₆H₁₂O₆

0.394 M C₆H₁₂O₆
 Kool-Aid

0.4M

② Regular strength

$$\frac{\#s}{100 \text{ml solution}}$$

Want 100ml 0.4M KA
 Q: — g KA?

$$\frac{0.4 \text{ mole KA}}{1 \text{ L}} \rightarrow 0.1 \text{ L}$$

0.4 mole KA	0.1 L	180g KA
1 L		1 mole KA

0.4M 7.2g KA 100ml Soln

1.2M 21.6g KA 3X