Assignment 0L + 0M – Selected Answers   20 Point

For the density equation below, complete the chart below

D =	m		m	type	**Mass**		unit	**g**	**kg**
	v		v	type	**Volume**		unit	**mL**	**L**

Solve the following density problems   **(0L)**

m = 41.4g, v = 8.30mL, find Density (D)	
Eqn	D = m/v
m = **41.4 g**	v = **8.30mL**
D =	$\dfrac{41.4 \text{ g}}{8.30 \text{ mL}}$
Density (D) =	**4.99 g/mL**

Density Eqns

ⓐ $D = \dfrac{M}{V}$ ⓑ $m = D \cdot V$

(solve for D) (solve for m)

ⓒ $V = \dfrac{M}{D}$

(solve for V)

Units
M = g
V = mL
D = g/mL

0M

D = 1.20g/mL, m = 43.5g, find volume (v)		D = 0.94g/mL, v = 84.1mL, find mass (m)	
Eqn	v = m/D	**Eqn.**	m = D • v ~~X~~
D = **1.20g/mL**	m = **43.5g**	D = **0.94 g/mL**	v = **84.1mL**
v =	$\dfrac{43.5 \text{ g}}{1.20 \text{ g/mL}}$	m =	**0.94 g/mL × 84.1mL**
Volume (v) =	**36.25 mL**	Mass (m) =	**79.05 g**

Units

$D = \dfrac{M}{V} = \dfrac{g}{mL}$ $M = V \cdot D$ $V = \dfrac{M}{D}$

$M = mL \cdot \dfrac{g}{mL} = g$ $V = \dfrac{g}{\frac{g}{mL}} = mL$