

Name _____ Period _____

College Prep Chemistry of the Earth System

Assignment 0N – Solving for Density, Part 3 – Mixed Problems

20 Points

Solve each problem, writing the equation for each variable given

Density	$D = \frac{m}{v}$	Mass	$m = D \cdot v$	Volume	$v = \frac{m}{D}$
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D = 4.96g/mL, v = 51.9mL, find <u>mass (m)</u>				m = 53.9g, v = 90.4mL find <u>Density (D)</u>			
Equation		$m = D \times V$		Equation		$D = \frac{m}{v}$	
D =	4.96 g/mL	v =	51.9 mL	m =	53.9 g	v =	90.4 mL
m = (Work)	$4.96 \text{ g/mL} \times 51.9 \text{ mL}$			D = (Work)	$\frac{53.9 \text{ g}}{90.4 \text{ mL}}$		
Mass (m) =		257.42 g		Density (D) =		0.60 g/mL	

m = 31.6g, v = 15.5mL find Density (D)				D = 0.65g/mL, m = 86.90g, find <u>volume (v)</u>			
Equation				Equation		$V = \frac{m}{D}$	
m =		v =		D =	0.65 g/mL	m =	86.90 g
D = (Work)				v = (Work)	$\frac{86.90 \text{ g}}{0.65 \text{ g/mL}}$		
Density (D) =				Volume (v) =		133.69 mL	

D = 0.78g/mL, v = 68.60mL, find mass (<i>m</i>)				D = 2.05g/mL, m = 146.3g, find volume (<i>v</i>)			
Equation				Equation			
D =		v =		D =		m =	
m = (<i>Work</i>)				v = (<i>Work</i>)			
Mass (<i>m</i>) =				Volume (<i>v</i>) =			