Name key Period All

College Prep Chemistry of the Earth System

Assignment 0O – Unit 0 Calculation Review 30 Points

Calculate the relative error for the following measurements

RE(+) Exp > known

RE(-) Exp < known

RE (0) Exp = known

Known Value	Experimental Value	~~Known~~ Exp. Value - ~~Experimental~~ known Value = Relative Error (RE)
49.4g	45.1g	- =
1.30cm	1.45cm	1.45 cm - 1.30 cm = +0.15 cm (Exp > known)

Solve the following problems based on the measurements above. For addition and subtraction round to same decimal place as measurements.

least # places after decimal

45.60g + 23.6g	0.420mL - 0.21mL
+ =	0.420mL - 0.21mL = 0.21mL (3) (2) (2)

2 places after decimal

23.4g • 132.59g	235.2g / 129.4mL
23.4g • 132.59g = 3102.61 g² (2)	=

Solve each problem, writing the equation for each variable given

Density	D = m/v	Mass	m = D • v	Volume	v = m/D

D = 1.59g/mL, v = 194.2mL, find mass (*g*)				m = 92.5g, v = 120.4mL find Density (*D*)			
Equation	$m = D \cdot v$			Equation			
D =	1.59 g/mL	v =	194.2mL	m =		v =	
m = (*Work*)	← show work! 1.59 g/mL · 194.2 mL Cross cancel units			D = (*Work*)			
Mass (*m*) =	308.78 g (2) Round Units			Density (*D*) =			