

Density Data Sheet		
Student Name:		
Partner Name:		
Date	Instructor's Initials	Grade
Part One		
Mass of Empty Pycnometer =		
Volume of Pycnometer =		
Volume of Ethanol	Volume of Water	%Vol Ethanol
Mass of Ethanol + Water + Pycnometer	Mass of Water + Ethanol	Density
Mass of Ethanol + Pycnometer	Mass of Ethanol	%Mass Ethanol

Density Data Sheet

Part Two

Mass of Unknown Solution + Pycnometer =

Density of Unknown Solution =

Prepare a plot of **vol%** ethanol (x) vs. Density (y) for your known solutions. Your plot should have a descriptive title, axis labels (denoting units used), a linear trendline, an equation of the line, and a coefficient of determination (R^2). Upload your plot to Canvas.

Prepare a plot of **mass%** ethanol (x) vs. Density (y) for your known solutions. Your plot should have a descriptive title, axis labels (denoting units used), a linear trendline, an equation of the line, and a coefficient of determination (R^2). Upload your plot to Canvas.

Which of your two plots has a better R^2 value. What does this tell you about how well the equation of the line represents the general trend of the data? How can you explain any discrepancy between the two plots?

Determine the %mass of ethanol in your unknown sample based on its density. Show all your calculations.