

Surface Tension Data Sheet

Name:

Partner Name:

Part A

Water				Radius (m)
Temperature (°C)	Density (kg/m ³)	Surface Tension (N/m)	Capillary Rise (m)	

Calculate the radius of your capillary tube. Show all of your work. Use units and proper mathematical notation throughout.

Parts B and C

Mass of *n*-Butanol (g):

Concentration (%mass)	Mass of Solution (g)	Density (kg/m ³)	Capillary Rise (m)	Surface Tension (N/m)

Surface Tension Data Sheet

Show your work for the calculation of the first solution's concentration.

Show your work for the calculation of the second solution's concentration.

Show an example of your density calculation.

Show an example of your surface tension calculation.

Surface Tension Data Sheet

Prepare a plot of concentration (%mass) vs. surface tension (N/m). Fit a line to the data. Report the equation of the line and R^2 . Comment on how well the data fits.

Unknown

Density (kg/m ³)	Capillary Rise (m)	Surface Tension (N/m)	Concentration (%mass)

Show your work for the calculation of the unknown's surface tension.

Show your work for the calculation of the unknown's concentration.