

Abstract Writing

CHMG146 Section 12

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In this experiment, the accuracy and precision of blue dye absorbances were tested using methods by the  $R^2$  value on a calibration curve. The calibration curve was used to determine the concentration of an unknown substance. A total of six solutions were created by diluting a higher concentration solution. Different sized pipettes and volumetric flasks were used to transfer the solutions into glassware then viewed under a spectrophotometer. The results yielded a line-of-best-fit with a slope of  $0.1021 \pm 0.0003$  with an intercept of  $-0.001 \pm 0.001$ ; This line yielded an  $R^2$  value of 0.9999597. Knowing this, the unknown substance's concentration was  $1.5 \pm 0.5 \mu\text{M}$ .