Sri Lanka Institute of Information

Technology



Lab Submission

Lab sheet No: 08

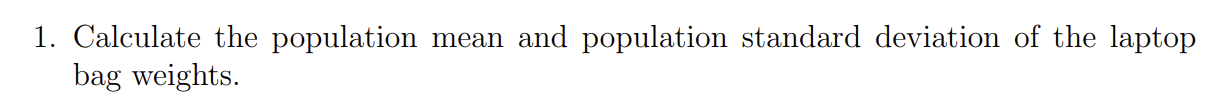
**IT24101603**

**Palihawadana T. S.**

**Probability and Statistics | IT2120**

B.Sc. (Hons) in Information Technology

**Exercise**

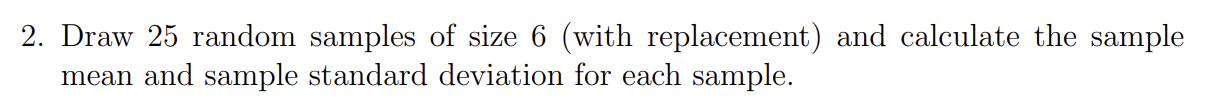


A close-up of a computer

AI-generated content may be incorrect.

A white background with black and white clouds

AI-generated content may be incorrect.



A computer code with blue text

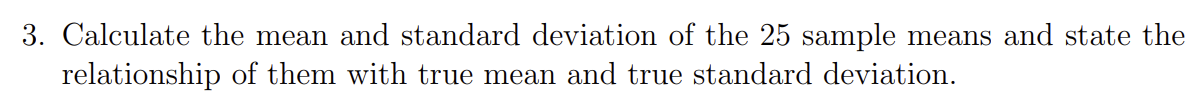
AI-generated content may be incorrect.

A black and white text

AI-generated content may be incorrect.

A screenshot of a computer

AI-generated content may be incorrect.



A blue and white object

AI-generated content may be incorrect.

**A white background with black dots

AI-generated content may be incorrect.**

Relationship:

* The sample mean (2.4785) is very close to the true mean (2.468), which shows that the sample mean is an unbiased estimator of the population mean.
* The standard deviation of the sample means (0.0789) is slightly smaller than the true standard deviation (0.1046). With more samples, it would approach the true value, demonstrating that the sample standard deviation is a consistent estimator of the true standard deviation.