

Problem Set #2

MACS 30150, Dr. Evans

Due Wednesday, Jan. 16 at 11:30am

Do the following Exercises from the Brigham Young University Applied Mathematics and Computational Emphasis (ACME) Python labs [Humpherys and Jarvis \(2017\)](#) and from Dr. Evans' notes.

1. **Numerical differentiation exercises (? points).** Do problems 1 through 5 and 7 (skip 6) from [ACME: Numerical Differentiation](#) lab. You will need to download the [plane.npy](#) file, which is saved in the course repository.
2. **Numerical integration exercises from Evans: Numerical Integration lab.** Do exercises 14.1 through 14.9 from the Numerical Integration Jupyter notebook used in class.

References

Humpherys, Jeffrey and Tyler Jarvis, “Computational Labs for Foundations of Applied Mathematics, Volumes I and II,” 2017.