

PHYSICS 102
CLASSICAL MECHANICS LAB
FALL 2015

Assignment Two

Due Wednesday, October 21, 7:00 pm.

- [1.] Write a code to compute $\int_1^4 x^3 dx$ using the trapezoidal rule. Print it and hand it in.
- [2.] Run your code for $N = 4, 16, 64, 256$ divisions of the interval, and compare with the exact answer.
- [3.] Write a code to compute $\int_1^4 e^x \sqrt{x} \log x dx$ using the trapezoidal rule. Print it and hand it in.
- [4.] Run your code for $N = 4, 16, 64, 256$ divisions of the interval. Can you compute the exact answer?