Computational Physics / PHYS-GA 2000 / Problem Set #3
Due September 26, 2023

You *must* label all axes of all plots, including giving the *units*!!

1. Exercise 4.3 of Newman.
2. Read Example 4.3 in Newman. Using successively larger matrices (10×10, 30×30, etc.) find empirically and plot how the matrix multiplication computation rises with matrix size. Does it rise as N^3 as predicted? Use both an explicit function (i.e. the one in the example) and use the `dot()` method. How do they differ?
3. Exercise 10.2 in Newman.
4. Exercise 10.4 in Newman.
5. **Central limit theorem example**
6. **Tests of randomness of numpy**