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

1. What is the binary representation of the decimal integer 121?

2. Write a function in Python which calculates and returns the sum of a NumPy array of numbers by executing a loop which performs a set of additions. Note that you can achieve the same functionality with the `sum()` method of NumPy array objects. Compare the speed of your function vs. `sum()` using `%timeit`.

3. Exercise 2.9 of Newman. Note that the physical constants drop out so you do not need to worry about them (whenever possible you should seek to remove physical constants from the innards of your computations!). Also, you should try to solve this without using an explicit `for` loop.

4. Exercise 4.2 of Newman.