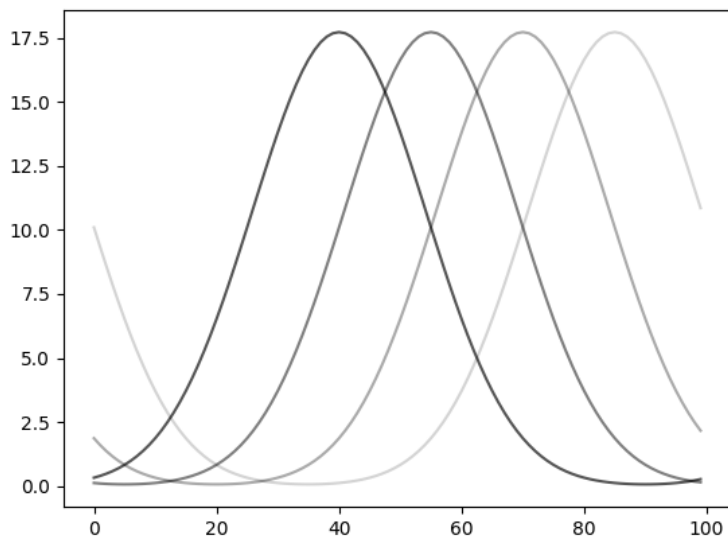


## Problem 3

The following plot illustrates the relationship between the shift and the correlation function.



Where the lines get progressively darker as the shift increases (linearly). You can see that a shift applied to only one of the two Gaussians leads to a negative shift on the resulting correlation. This is of course as expected - a simple substitution in the variables would get the same results analytically.