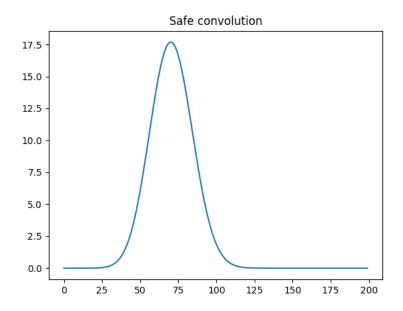
## Problem 4

The output array is of length  $N_f + N_g$ , the resulting convolution for two Gaussians centered at different points with unequal data lengths looks as follows:



Of course, it's important to note that although f and g are not of the same length, the x step sizes are the same and the x-axes are aligned w.r.t the origin  $(x_f[0] = x_g[0])$ .