EXERCISE 5.5: In MATLAB, we can compute only the convolution of finite-length signals. Determine the length of the output sequence computed by the MATLAB convolution above.

Length of $yy = \text{Length}(xx) + \text{Length}(hh) - 1$

Length of $xx = 51$ \hspace{1cm} \text{because 0:50 generates 0,1,2,...50}

Length of $hh = 11$ \hspace{1cm} \text{ones(11,1) is 11-element column}

$\Rightarrow$ Length of $yy = 51 + 11 - 1 = 61$