Give MATLAB code to do the following in succession:

(a) Create a vector \( \mathbf{x} \) with the integers 1 up to 100.

(b) Using vector \( \mathbf{x} \), create a vector \( \mathbf{y} \) with the odd integers from 43 up to 241.

(c) Without using vector \( \mathbf{x} \), create a vector \( \mathbf{y} \) with the even integers from 100 to \(-98\) in decreasing order.

(d) Create a 100-entry vector that has as its \( k \)th entry the sum of the first \( k \) squares. (Hint: MATLAB has a \texttt{cumsum} vector operation.)