

1) Compute moving average  $y(n)$  for signal  $x(n)$  let the user enter the number of points (window size) included in averaging

2) Sharpening Signals

Compute and display  $y(n)$  which represents

- First Derivative of input signal

$$Y(n) = x(n) - x(n-1)$$

- Second derivative of input signal

$$Y(n) = x(n+1) - 2x(n) + x(n-1)$$

3) The ability to convolve two signals