Notch Filter: Write a script **proj08.m** that reproduces the results shown below (all four figures). Your script should call a function that returns a Butterworth notch filter of size $P \times Q$. Your filter should accept as arguments $P, Q, n$ (the filter order), $D_0$ (the filter radius parameter), $u_0$, and $v_0$ (the notch filter center coordinates). (A filter with notch center coordinates $u_0$, $v_0$ should also have another notch centered at $-u_0$, $-v_0$ for symmetry.) To reproduce the figure below you will need to call your filter function four times. Use a value of $n = 4$ for the filter order. You will need to determine the best values to use for the four $u_0$, $v_0$ pairs by trial and error. Also find the value for $D_0$ that gives the best results.

Submit the source code in a zip or tar archive via the submission system.