Homework 4

Due Friday 1/31/20

1. Create a component for the Newton's iteration block that uses generics for W_bits and F_bits.
2. Adapt your testbench from HW 3 to drive the Newton's block.
3. Using the fixed-point toolbox in Matlab, create some random fixed-point values and write these the stimulus file.
4. Write a fixed-point function in Matlab the performs the same calculation as the VHDL code does. You will need to set the appropriate fimath properties to make it bit-true.
5. Show that your fixed-point Matlab function and your VHDL code produce the same results.