6a) For an 8-point decimation-in-time (DIT) FFT, we may count the number of complex multiplications in the flowgraf in Fig. 9.11 in the text book by Oppenheim an Schafer

In the first stage of the FFT, there are NO complex multiplications, whereas in the second stage, there are TWO multiplications by W_8^2. Finally, in the third stages there are THREE multiplications by W_8, W_8^2, and W_8^3. Thus, there a total of FIVE complex multiplies.