

Remember to bring your textbook on Monday!

1. (a) Solve Ch5: 5.12 – 5.20, 5.37, 5.44

(Hint: to calculate group delay, you may want to use symmetry properties of the sequences).

(b) Now consider 5.20. Write the expression for $H_1(z)$ by reading the zero's graphically. Among the 4 types of filters, check which type it is.

2. Suppose $H(z)$ is a type I filter. Among the four types of filters, which type is $H(z)(1 - z^{-1})$?

3. Assuming $x(-1) = y(-1) = 0$. Compute the impulsive response of $y(n) = [1 - x(n)]y(n - 1) + 1$.