Homework #1
Due We. 1/19

(OW = Oppenheim, Willsky, and Nawab, "Signals and Systems").

Note: The **Basic Problems with Answers** will be worth half as much as the other questions. You must show all your work to receive credit.

1. (OW 1.21)
2. (OW 1.22 (a)-(f))
3. (OW 1.31)
4. (OW 1.49 (a)-(f), (i), (k), (l))
5. (OW 1.51 (a)-(c))
6. (OW 1.55)
7. (OW 1.56)
8. Using expressions in OW 1.54 and for any $0 < N_1, N_2 < \infty$,

   (a) For $a \neq 1$, find a closed form expression for

   $$\sum_{n=N_1}^{N_2} a^n$$

   (b) For $|a| < 1$, find a closed form expression for

   $$\sum_{n=N_1}^{\infty} a^n.$$