

**Special Problem 2.2-1**

A lossless transmission line is terminated with a load  $Z_L$ . Show that:

1. if  $Z_L = 0$ , then  $V_0^- = -V_0^+$
2. if  $Z_L = \infty$ , then  $V_0^- = V_0^+$
3. if  $Z_L = jX$ , then  $|V_0^-| = |V_0^+|$
4. if  $Z_L = Z_0$ , then  $V_0^- = 0$