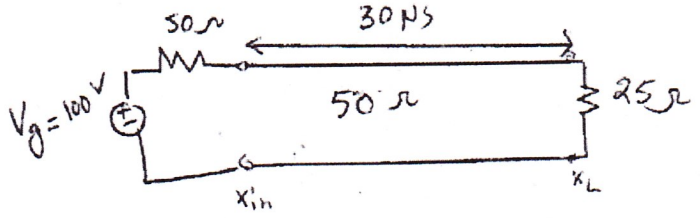
EE311
Spring 2019
Game 50 4/24/19 T-line transient

Name _____
Code _____

Given the following transmission line system

a) Find Voltage Bounce diagram
b) Find V vs time at the load and at the generator



$$V_{in}^{+} = V_g \frac{R_0}{R_0 + R_g} = \frac{100}{2} = 50\text{V}$$

$$\Gamma_L = \frac{R_L - R_0}{R_L + R_0} = \frac{25-50}{25+50} = -\frac{1}{3}$$

$$V_{in}^{ref} = (50\text{V})\Gamma_L = -\frac{50}{3}$$

$$V_{in}^{1+4} = \left(-\frac{50}{3}\right)\Gamma_g = 0 \quad \text{No refl.}$$

$$\Gamma_g = \frac{R_g - R_0}{R_g + R_0} = 0$$