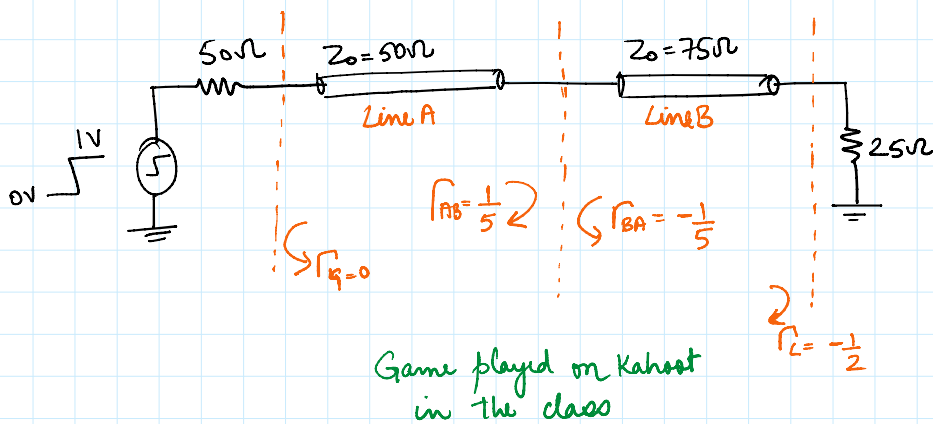


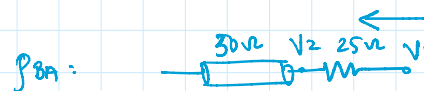
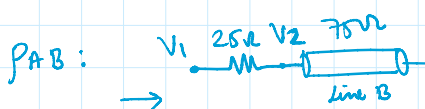
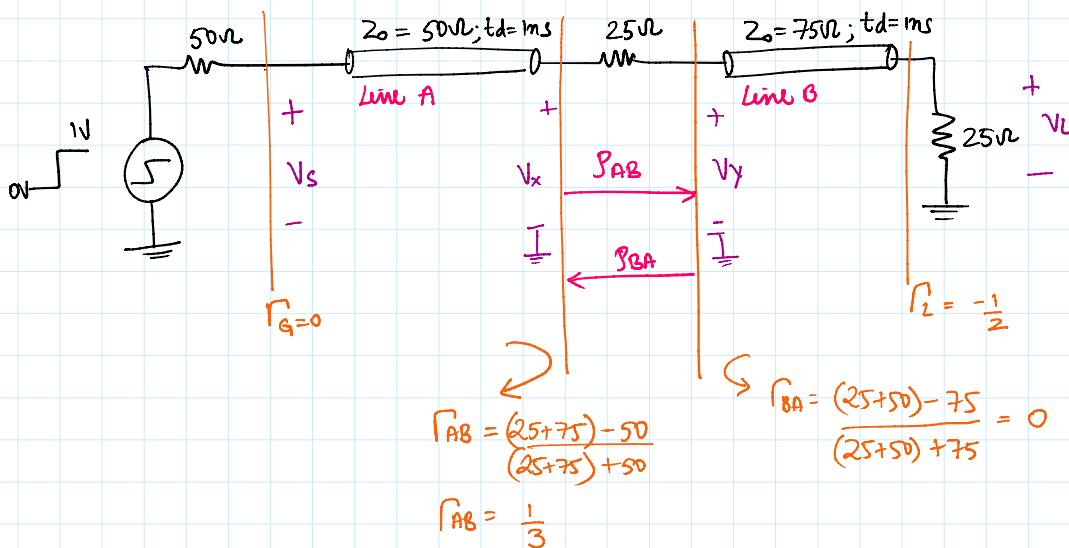
## Intersection of 2 Transmission Lines



Observation: Due to characteristic impedance mismatch of the two transmission lines, there will be multiple reflections

Due to these reflections, it takes a long time to settle to the steady state value.

Technique to avoid multiple reflections is to add a series resistance between two transmission lines.



$$V_2 = \frac{75}{25+75} \times V_1$$

$$\beta_{AB} = \frac{V_2}{V_1} = \frac{3}{4}$$

$$V_2 = \frac{50}{50+25} \times V_1$$

$$\beta_{BA} = \frac{V_2}{V_1} = \frac{50}{75} = \frac{2}{3}$$

