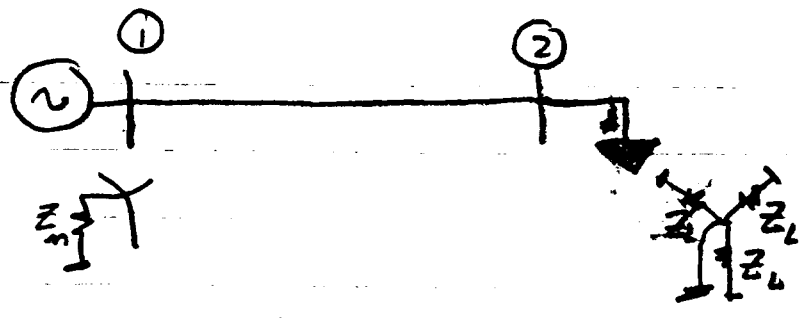


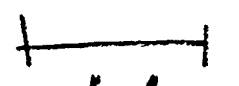
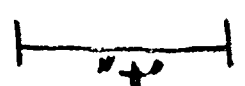
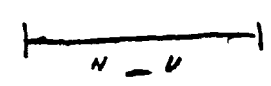
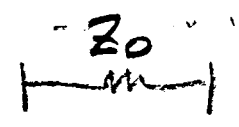
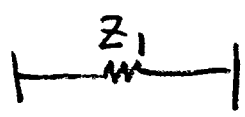
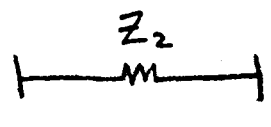
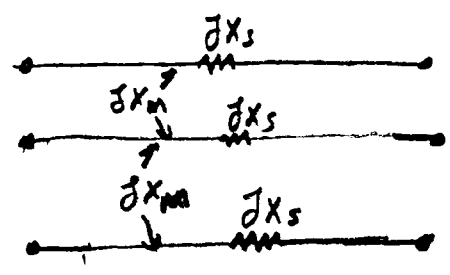
# ① Lecture # 19

## A simple power system.

a) Assume Gen. is unbalanced.



Transmission line models

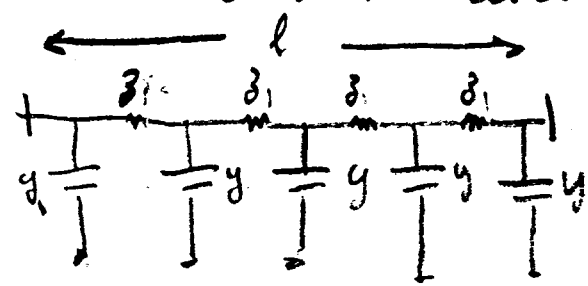


$$Z_2 = j(X_s - X_m)$$

$$Z_1 = j(X_s - X_m)$$

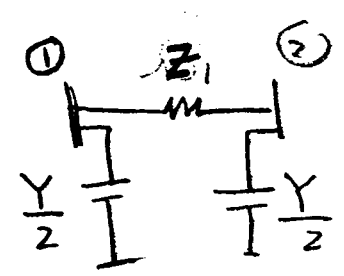
$$Z_0 = j(X_s + 2X_m)$$

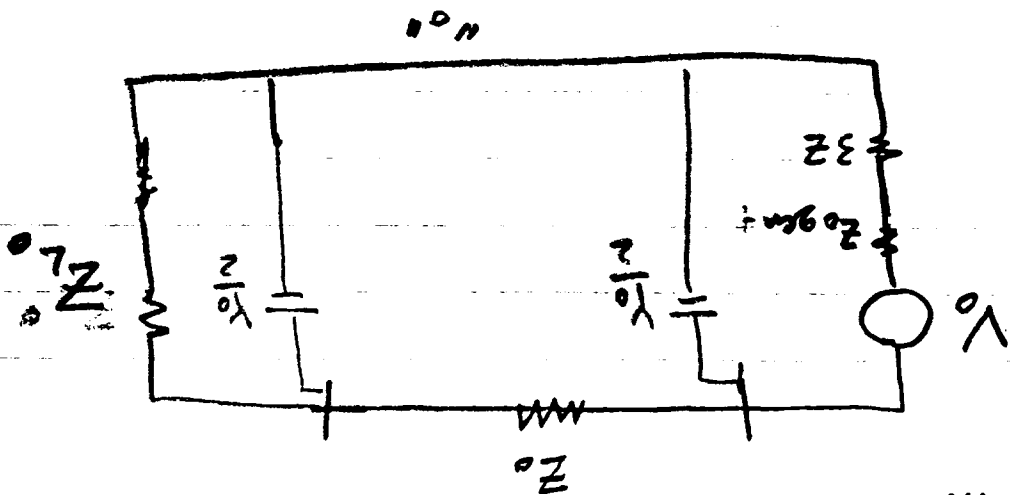
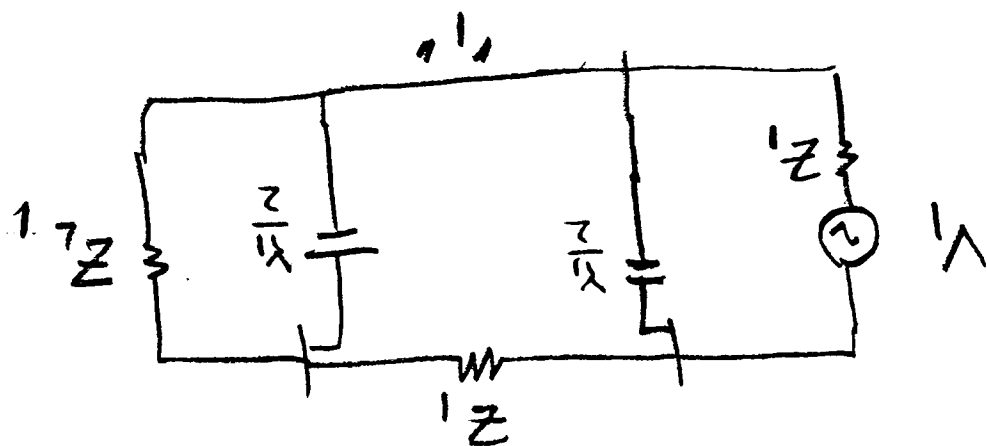
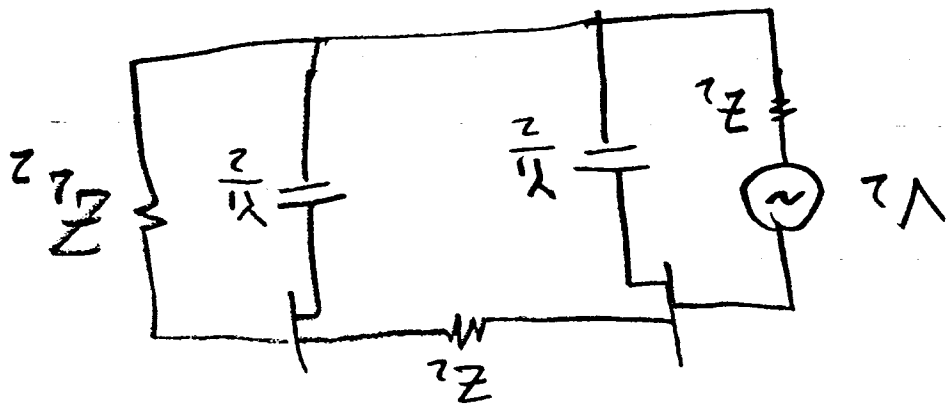
$\pi$ -model of Trans. line



$$Z = l z \quad \text{"r'"}$$

$$Y = l y \quad \text{"b'"}$$

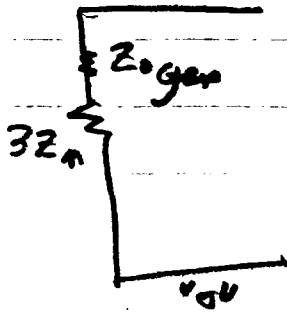




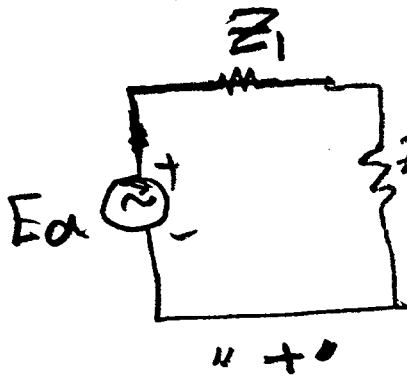
Gen.

3

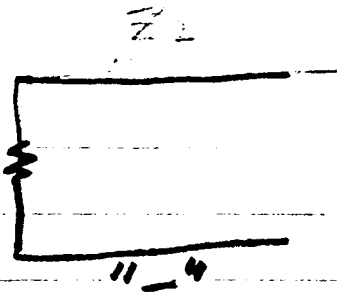
b) Assume Gen. is balanced



Same as before



Same as before



Same as before.