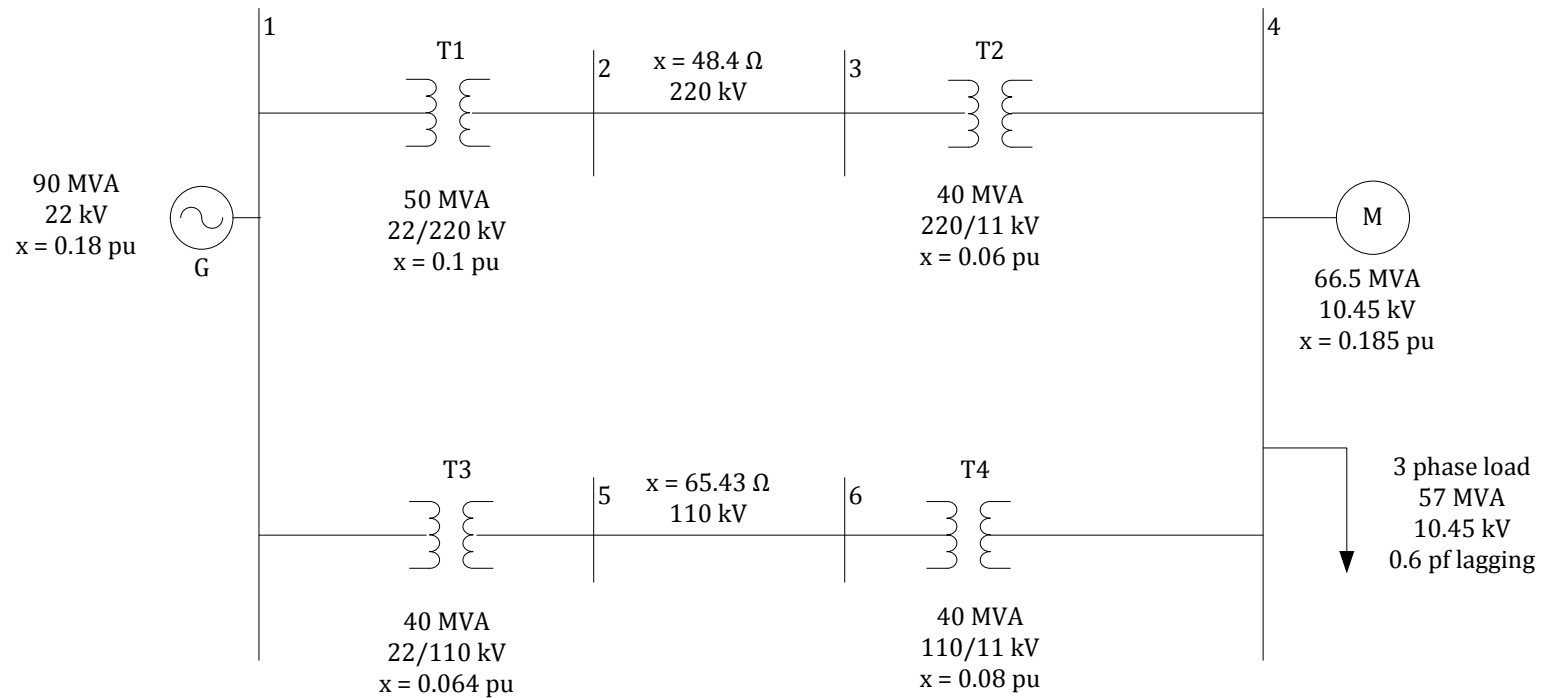


Tutorial 5

For the system shown below:



- a) Draw the impedance diagram in per unit. Use 100 MVA as the base power and 22 kV as the base voltage on the generator side.
- b) The motor is operating at full load, 0.8 power factor leading, and a terminal voltage of 10.45 kV. The three phase load is also drawing rated power. Calculate the voltage at bus 1 (generator bus) in per unit and kV