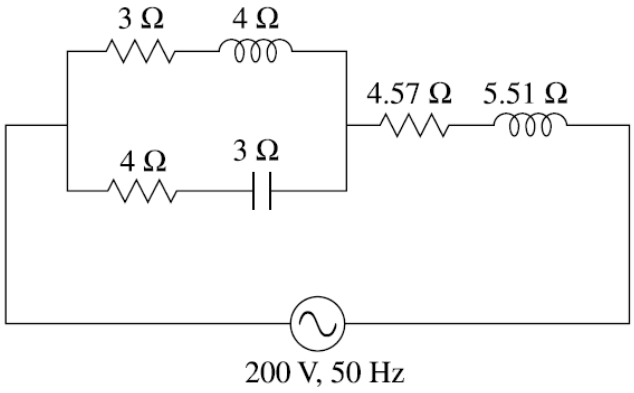
Assignment – Lecture 33

1. Find the total impedance, supply current and pf of the entire circuit

   ANS ([10.06 ∠36.68° Ω, 19.88 ∠–36.68° A, 0.801 lagging])



2. Two coils are connected in parallel across 200V, 50Hz mains. One coil takes 0.8kW and 1.5 kVA and the other coil takes 1kW and 0.6kVAR. Calculate the resistance and reactance of a single coil that would take the same current and power as the original circuit. Draw the phasor diagram representing the original circuit.