From the text book: 2.1(a, c, d, e), 2.2, 2.3, 2.6.

P1. Three single-phase, 10kVA, 2400/120-V, 60 Hz transformers are connected to form a three-phase, 2400/208-V transformer bank. The equivalent impedance of each single-phase transformer referred to primary side is $10+j25\,\Omega$. The transformer bank delivers 27kW at 208-V and 0.9 power factor leading.

(a) Draw the three-phase schematic diagram showing the transformer connection. Draw a per-phase equivalent circuit.
(b) Determine the primary current and power factor.
(c) Determine the primary voltage.
(d) Determine the voltage regulation.