6-10)

Using what you have learned constructing the phasor diagram for the LRC series circuit, construct a diagram for the LRC parallel circuit. Derive an expression for the circuit impedance Z and the phase angle ɸ between the applied *emf* and the current supplied by the *emf*.

HINT: in the series circuit, the current through all four components was the same. Ask yourself what the components in this arrangement have in common.