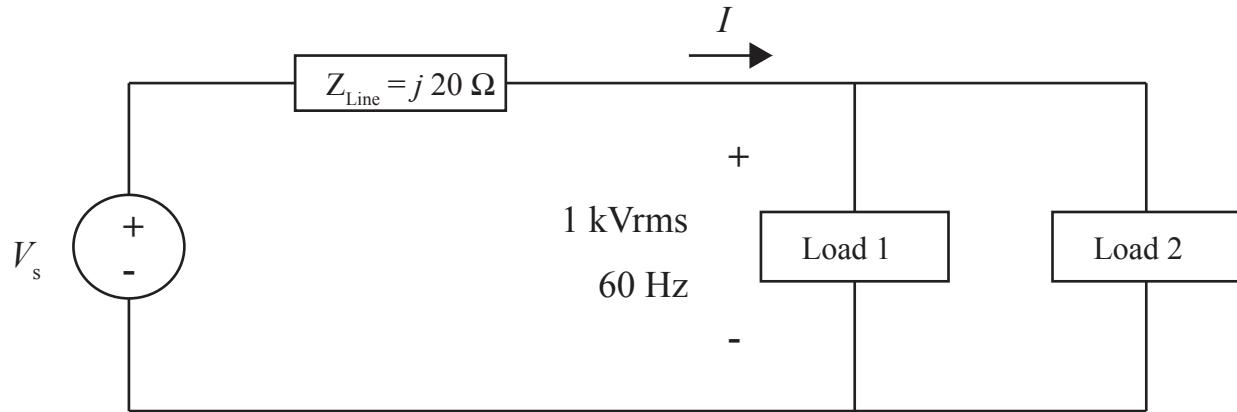


S.P. #11-A

Two loads are connected in parallel to a 1 kVrms line:



Load 1: 17 kVA at 0.7 lagging

Load 2: 9 kW at 0.8 lagging

- What is the power factor of the combined load?
- What is the line current I ?
- What is the source voltage V_s needed to maintain 1 kVrms at the loads?
- What capacitance C in parallel with the loads would raise the PF to 0.9 lagging?