Concept Question 7-9: The rule for adding the capacitances of two in-series capacitors is different from that for adding the resistances of two in-series resistors, but the rule for adding the impedances of those two in-series capacitors is the same as the rule for adding two in-series resistors. Does this pose a contradiction? Explain.

Once capacitances and inductances have been converted into impedances, the impedances can be combined together using the same rules as for resistance. Hence, no there is no contradiction between the rules used in the time domain and those used in the phasor domain.