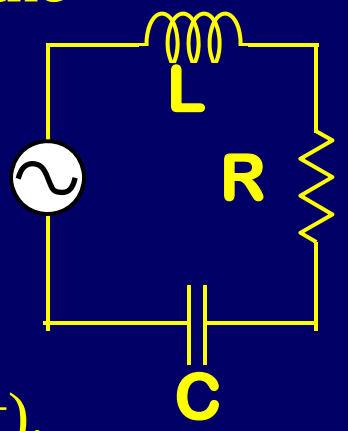
ACT: AC Circuit Voltages

An AC circuit with R= 2 Ω, C = 15 mF, and L = 30 mH has a current I(t) = 0.5 sin(8π t) amps. Calculate the maximum voltage across R, C, and L.



Now the frequency is <u>increased</u> so I(t) = 0.5 sin(16π t). Which element's maximum voltage <u>decreases?</u>

1) $V_{R,max}$
2) $V_{C,max}$
3) $V_{L,max}$