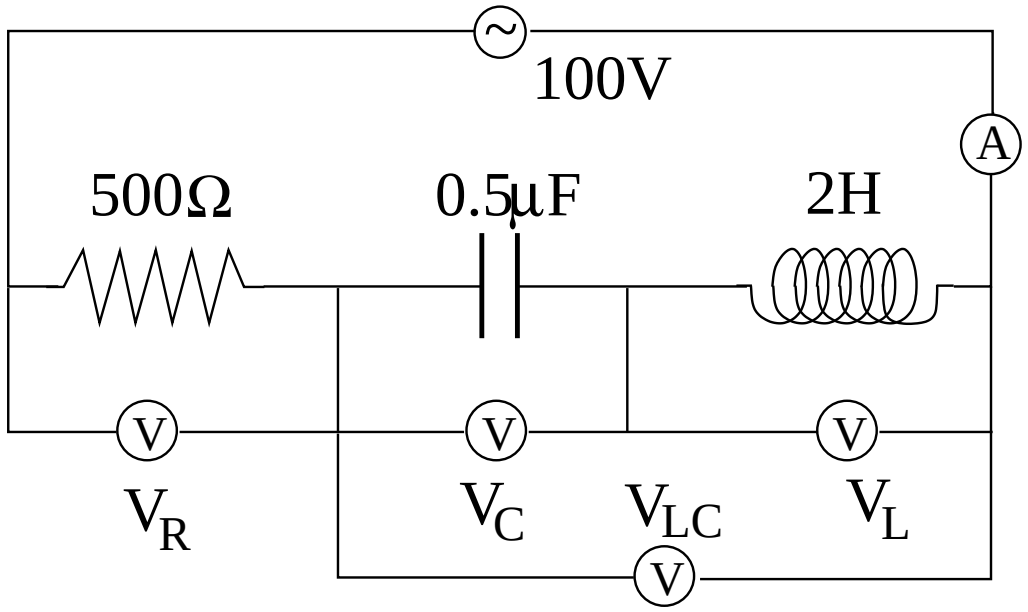
# AC Circuit Application (1)

In this $RLC$ circuit, the voltage amplitude is $\mathcal{E}_{max} = 100$V.

Find the impedance $Z$, the current amplitude $I_{max}$,
and the voltage amplitudes $V_R, V_C, V_L, V_{LC}$

(a) for angular frequency is $\omega = 1000$rad/s,

(b) for angular frequency is $\omega = 500$rad/s.



# AC Circuit Application (2)

In this $RLC$ circuit, we know the voltage amplitudes $V_R, V_C, V_L$ across each device, the current amplitude $I_{max} = 5$A, and the angular frequency $\omega = 2$rad/s.

- Find the device properties $R, C, L$ and the voltage amplitude $\mathcal{E}_{max}$ of the ac source.