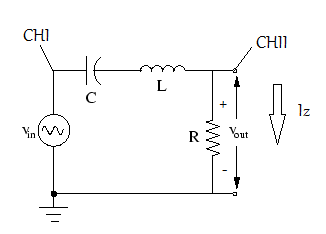
**Ece 232 - Advanced Electrical Circuit Analysis Lab**

**Frequency response (phase, magnitude characteristics**



**CHI**

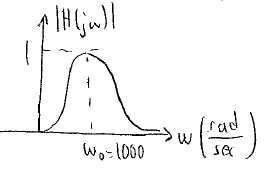
[Since all components are in series]

**CHII** 🡺 []

CHI vs. CHII shows the voltage-current relation for Z.

(magnitude characteristics)

To obtain resonant frequency equate real part of the denominator of H(jw) to 0.

Hence 🡺 {resonant freq.}

* If f=2500Hz and w=15700rad/sec

🡺

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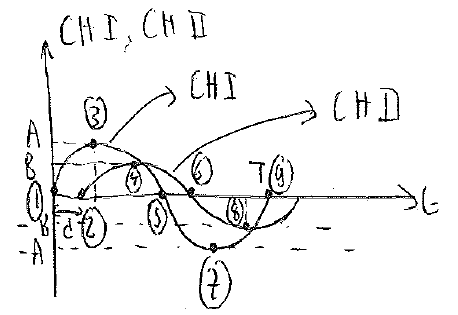
🡺

🡺The impedance is inductive.

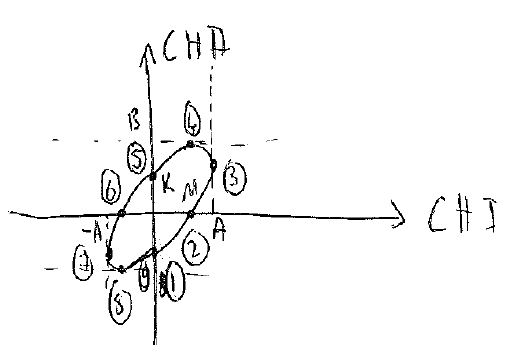
*d* : phase distance

{}

* Y-T mode [CHI and CHII are drawn w.r.t time t]



* Corresponding X-Y mode



Although we can find the phase by , we cannot identify precisely whether the phase is lagging or leading (we cannot say CHI is leading or lagging)