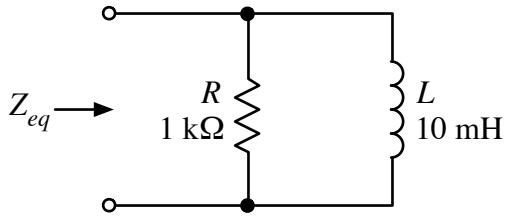
EE 201 — HW 7.6 Name_____

a. For the *RL* parallel combination shown at right, what is the angular frequency at which the *magnitude* of the equivalent impedance be equal to 500 Ω?



ω = _____

b. What is the phase angle of the impedance at the frequency calculated in part (a) above?

θ = _____

c. At what angular frequency is the phase angle of Z_{eq} equal to +45°?

ω = _____

d. What is the magnitude of the impedance at the frequency calculated in part (c) above?

$|Z_{eq}|$ = _____

e. What is the magnitude of the impedance as $\omega \to 0$?

$|Z_{eq}|$ = _____

f. What is the magnitude of the impedance as $\omega \to \infty$?

$|Z_{eq}|$ = _____

Write your answers — and whatever work will fit — on this sheet. Staple any sheets with additional work behind.