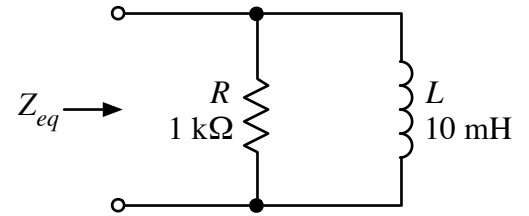a. For the *RL* parallel combination shown at right, what is the
    angular frequency at which the *magnitude* of the equivalent
    impedance be equal to 500 Ω?

$\omega =$ _____

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

$\theta =$ _____

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

$\omega =$ _____

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

$\left| Z_{eq} \right| =$ _____

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

$\left| Z_{eq} \right| =$ _____

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

$\left| Z_{eq} \right| =$ _____

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