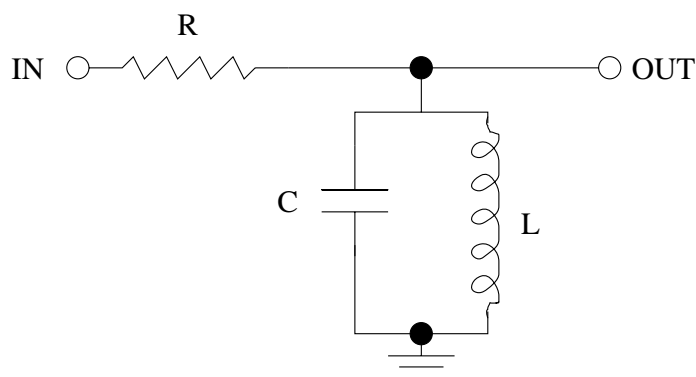


Physics 431/531 Homework 4

Due Oct. 21

1. Consider the filter circuit shown below. It is given an input $V_{\text{in}}(t) = V_i \cos(\omega t)$.
 - (a) Determine the transfer function $T(\omega) = |V_{\text{out}}|/|V_{\text{in}}|$.
 - (b) Make a rough sketch of $T(\omega)$. At what frequency is it maximum?
 - (c) Determine the phase shift $\phi(\omega)$ of output relative to input.



2. Text page 59, problem 7.
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Physics 431/531 Homework 5

Due Oct. 26

1. Text Problem 2.2
2. Text Problem 2.5