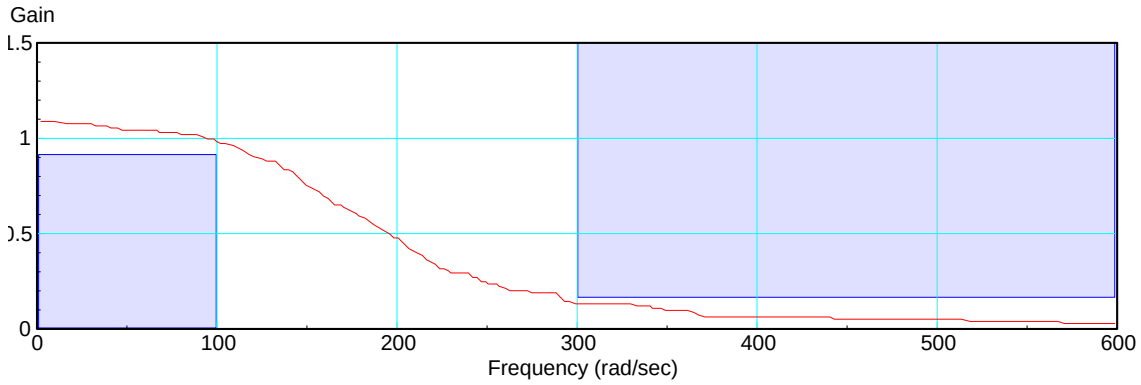
ECE 321 - Homework #3

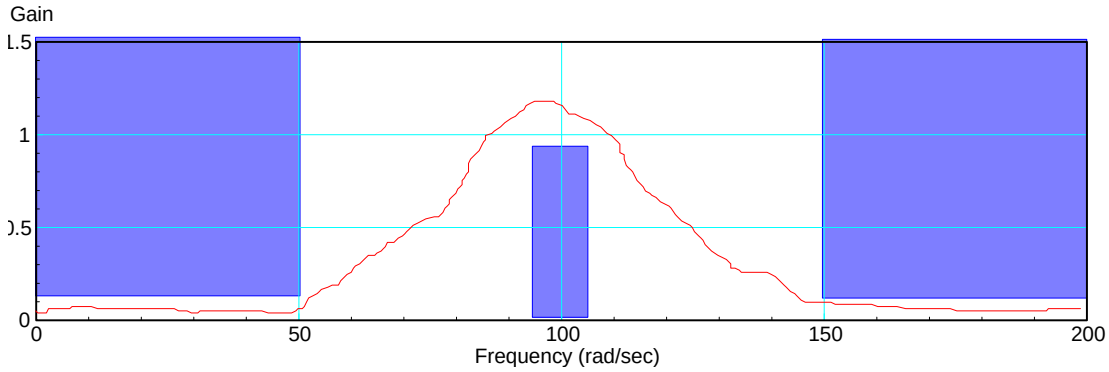
Filters, 2-port models. Due Monday, November 23rd

1) Give the transfer function for a filter which meets the following requirements
   - w < 100 rad/sec Gain > 0.9
   - w > 500 rad/sec Gain < 0.1
2) Verify that your filter meets these reqirements in MATLAB (or like program)
3) Design an op-amp circuit to impliment your filter.



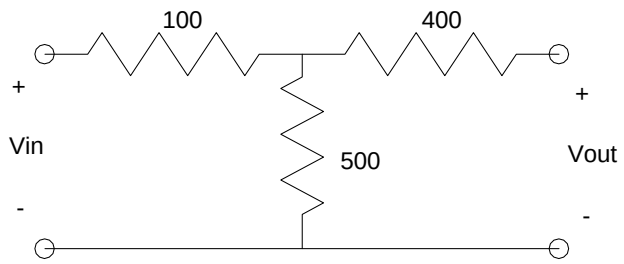
Problem 1-3

4) Give the transfer function for a filter which meets the following requirements
   - 90 < w < 110 rad/sec Gain > 0.9
   - w < 50 rad/sec Gain < 0.1
   - w > 150 rad/sec Gain < 0.1
5) Verify that your filter meets these reqirements in MATLAB (or like program)
6) Design an op-amp circuit to impliment your filter.



Problem 4-6

7) Give a 2-port model for the following circuit



8) Give a 2-port model for the following circuit