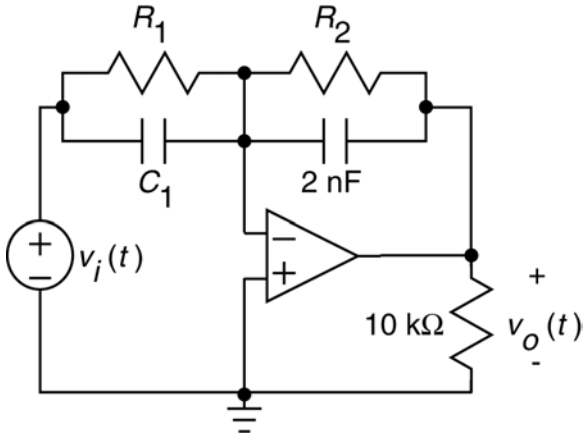
The input to this circuit shown is the voltage, $v_i(t)$, of the independent voltage source. The output is the voltage, $v_o(t)$, across the 10 kΩ resistor.



Six Bode plots, identified by the letters **A** through **F**, are shown on the next page.

1. Is it possible to design this circuit to have this Bode plot **A**? _____no_____(yes or no)

2. Is it possible to design this circuit to have this Bode plot **B**? _____yes_____(yes or no)

If yes, specify the required values of R_1, R_2 and C_1:

R_1 = _____10_____ kΩ, R_2= _____200_____kΩ, C_1 = _____4_____nF

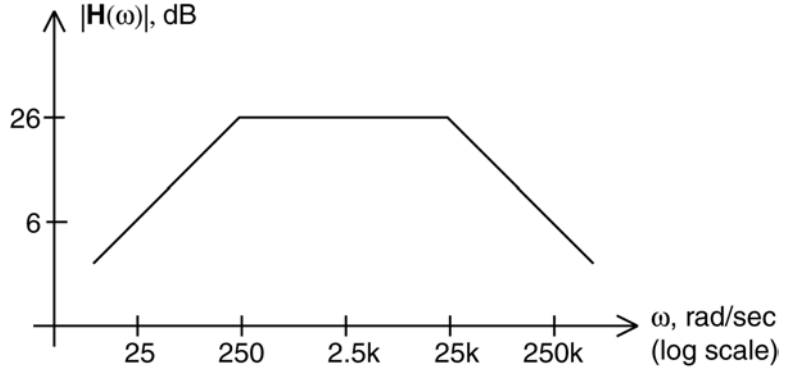
3. Is it possible to design this circuit to have this Bode plot **E**? _____yes_____(yes or no)

If yes, specify the required values of R_1, R_2 and C_1:

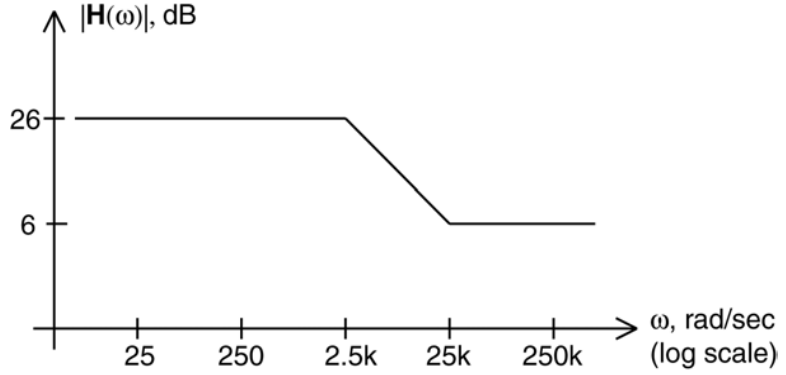
R_1 = _____10_____ kΩ, R_2= _____20_____kΩ, C_1 = _____40_____nF

4. Is it possible to design this circuit to implement Bode plot **F**? _____no_____(yes or no)

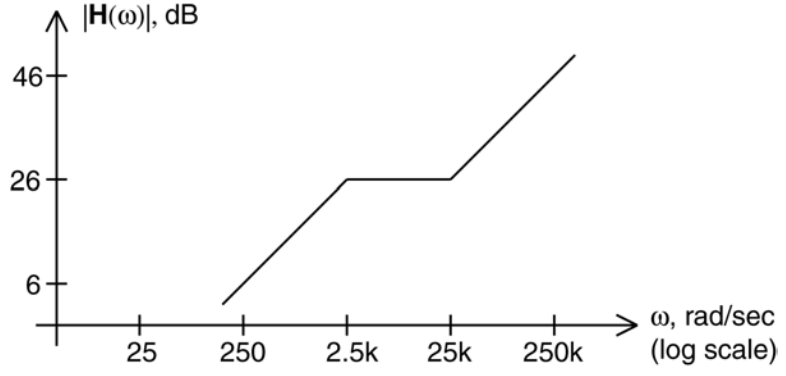
Gain Bode Plots



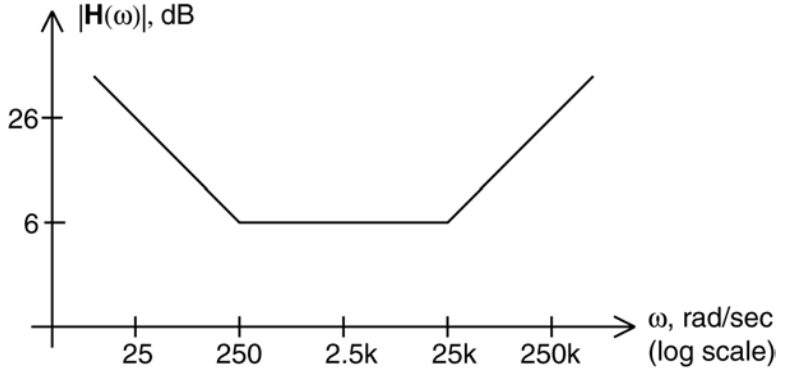
A



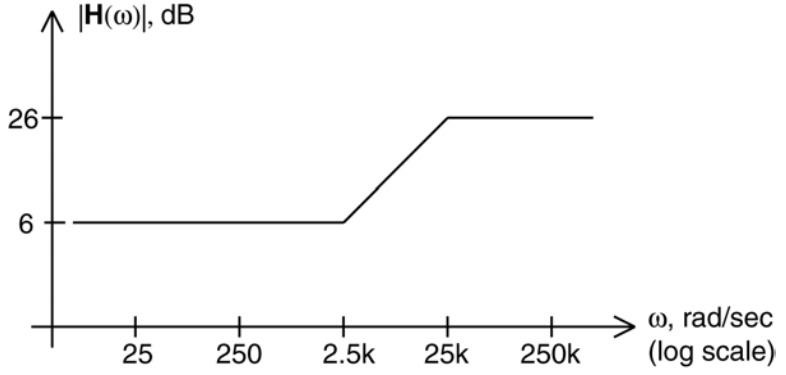
B



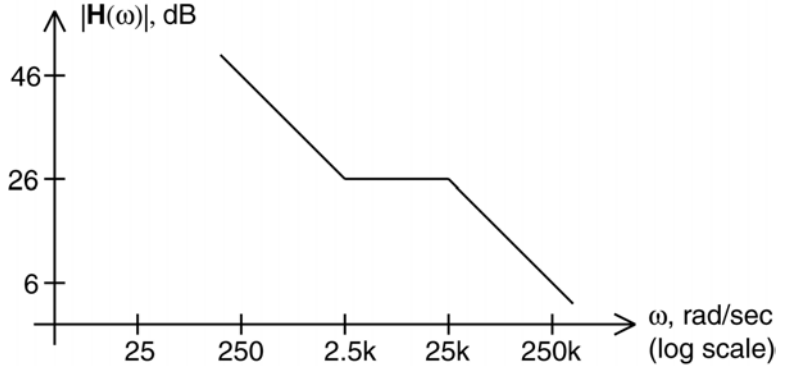
C



D



E



F