ECE 3050 Analog Electronics Quiz 8
July 8, 2009

Professor Leach   Last Name:_____First Name:_____

Instructions. Print your name in the spaces above. Place a box around any answer. **Honor Code Statement:** *I have neither given nor received help on this quiz.* Initials _____For credit, you must give all equations that you use to calculate your answers. Credit will not be given for any answer without full supporting work.

1 of 2. The straight line asymptotic approximation and smooth curve for the Bode magnitude plot of a transfer function is given. The horizontal axis is the radian frequency. What is the transfer function?
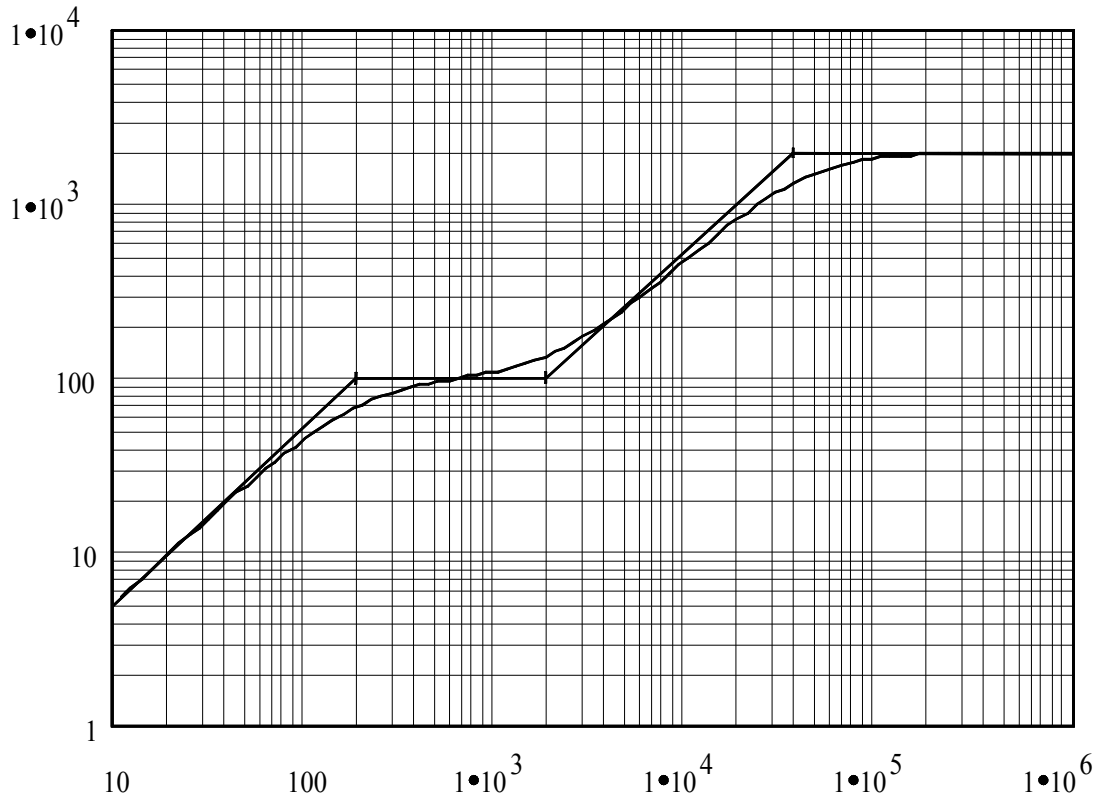
$$T\left(s\right) = 100\frac{s/200}{1 + s/200}\frac{1 + s/2000}{1 + s/4000}$$

Sketch the straight line approximation and smooth curve Bode magnitude plots for the transfer function

$$T\left(s\right) = 200 \frac{\dfrac{s}{4000} + 1}{\left(\dfrac{s}{400}\right)^2 + 0.4\left(\dfrac{s}{400}\right) + 1}$$

Label the axes in such a way as to make best use of the 5 log cycle graph.