

PHYC/ECE 463 Advanced Optics I
Fall 2007
Homework #10, Due Wednesday Nov. 14

1- K&F 5.31

2- K&F 5.32 (Use matrix method and possibly a mathematical software)

3- K&F 5.35

Note: the equation for L matrix given in this problem is wrong (as stated in the class)! Correct it before proceeding with the problem. In addition, (b) Calculate the new W (full-width-half-maximum (FWHM) of the transmittance) in terms of F and T_{\max} . (c) Plot the transmission versus δ for $\beta'=0.12, 0.1, 0,$ and -0.15 . (c) Explain the physical meaning and consequences of the condition for which T_{\max} becomes ∞ .)

4- K&F 5.37