Physics 110B, Problem Set 4

Due Wedenesday, October 30, 11:59pm

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1 Griffiths Problem 9.16 5th edition, 9.16 4th edition

2 Griffiths Problem 9.17 5th edition, 9.17 4th edition

Write the Fresnel equations in terms of the parameters α and β defined in Section 9.1. For the required sketch, Griffiths asks you to use $\beta = n_2/n_1 = 1.5$. This is consistent with the definition of β in Section 9.1 if $\mu_1 = \mu_2$. So make this assumption for the sketch and for the rest of the problem.

3 Griffiths Problem 9.21 5th edition, 9.20 4th edition

For part (c), compare with the same ratio, but in vacuum.