

1) In Section 9.4.1 we need to take the square root of a complex number. Just for practice, work out the square root of $(1+i)$. Write it in the form $a + b i$, tell me exactly what a and b are. (Choose the root with positive a)

2) In the middle of Griffiths 9.4.1, he finds that the wave vector " k " (that's the k in our usual plane wave $\text{Exp}[i k z - \omega t]$) is *complex*. That means (Eq 9.127) that the E field isn't a simple plane wave, it quickly dies away with position. (Do you see why complex k produces that result?) Given that this material is Ohmic, can you make any physical sense of this mathematical result? (Why might we have expected it before doing any math?)

3) Go to the Discussion forum I set up for you to hand in your paper summary/review. If you haven't done so yet, copy and past yours there. But then, take a couple minutes to pick someone else's and read it. (I'm finding the ones submitted so far to be worth reading!) Be sure to click on the "Mark read" button. A comment or question is what I'm after here - anything about their summary that generates a question for you?