

PHYS 622 – HOMEWORK # 4– DUE WEDNESDAY, 02/24/2010

Problem 1. An observer measures an electric field $\mathbf{E} = E\hat{r}/|r|$ and a magnetic field $\mathbf{B} = B\hat{r}'/|r'|$, where $B = 2E$. A second observer sees the two fields parallel. Determine the relative velocity (magnitude and direction) between the two observers.

Problem 2. Jackson's problem 11.28 parts (a) and (b).

Problem 3. Jackson's problem 11.29.