HW#6   Due 2024/01/03

1. Derive the dispersion relation of the light wave in a unmagnetized plasma by assuming $\vec{k} = k\hat{x}$ and $\vec{E} = E_{1y}\hat{y} + E_{1z}\hat{z}$.

$$\omega^2 = \omega_{pe}^2 + c^2 k^2$$