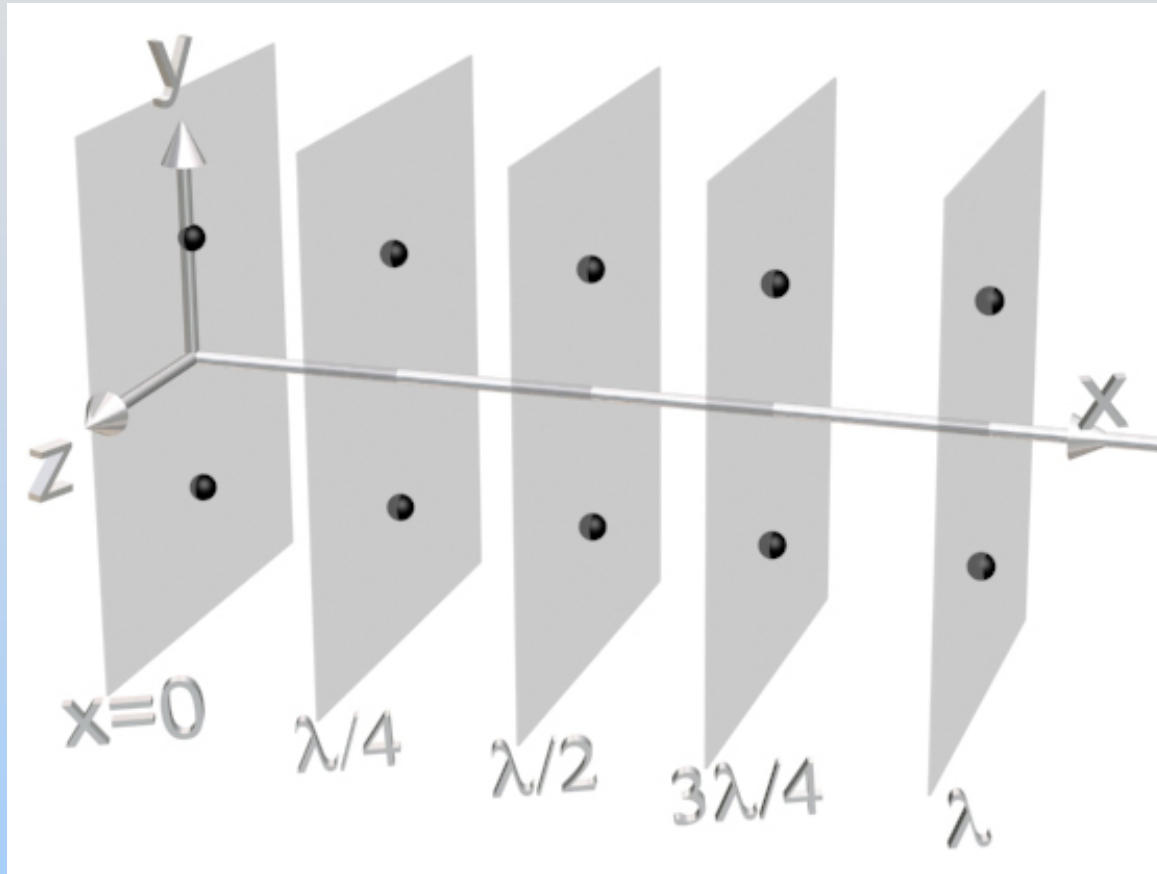# Group Problem: Plane Waves

1) Plot E, B at each of the ten points pictured for $t=0$

2) Why is this a "plane wave?"

$$\vec{E}(x, y, z, t) = E_{y,0} \sin\left(\frac{2\pi}{\lambda}(x - ct)\right)\hat{j}$$

$$\vec{B}(x, y, z, t) = \frac{1}{c} E_{y,0} \sin\left(\frac{2\pi}{\lambda}(x - ct)\right)\hat{k}$$