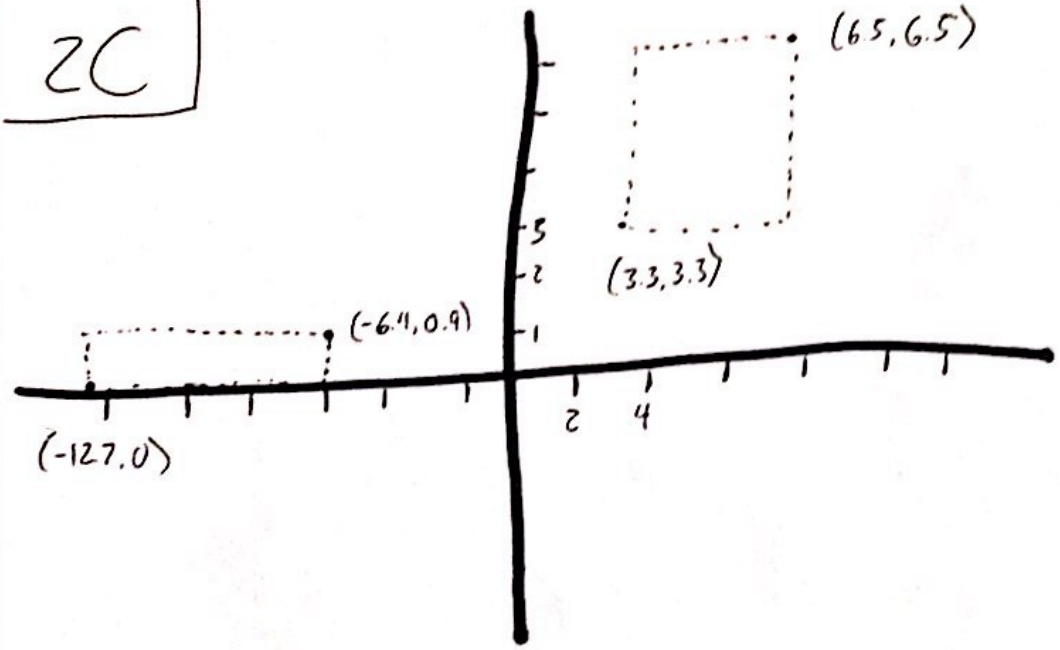
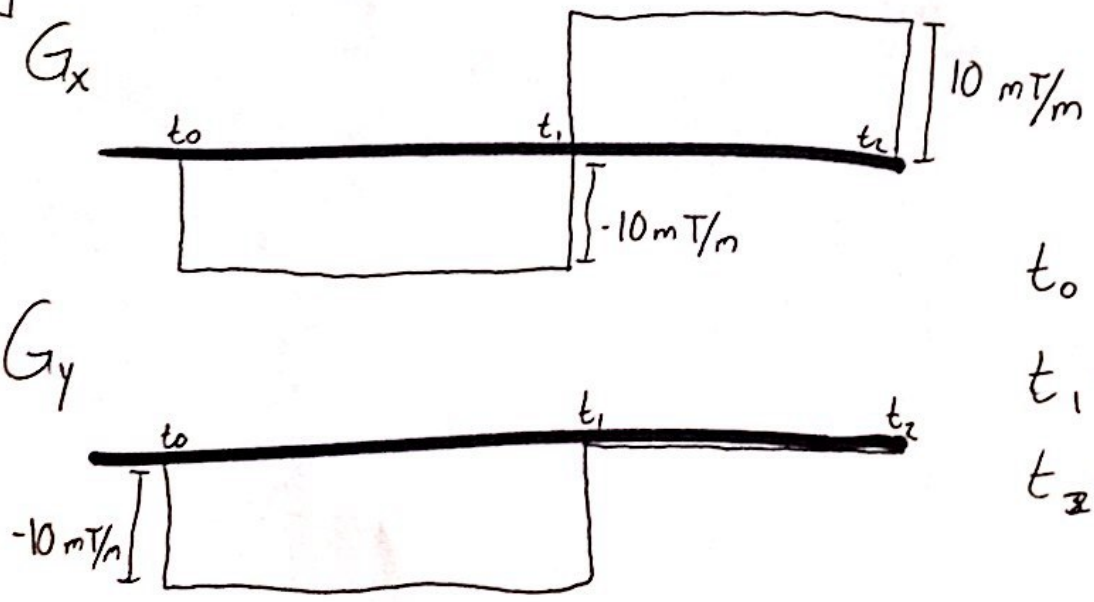
2C



3



$t_0 = 0$

$t_1 = 0.001\ s = 1\ ms$

$t_2 = 0.003\ s = 3\ ms$

$$\frac{\gamma}{2\pi} \cdot G \cdot t = \text{displacemant} \Rightarrow t = \frac{\text{displacement}}{\frac{\gamma}{2\pi} G}$$

$$t = \frac{(4.257\ cm^{-1})}{(42.57 \times 10^4\ Hz/mT)(10\ mT/m)(\frac{1m}{100\ cm})} = 1\ ms$$