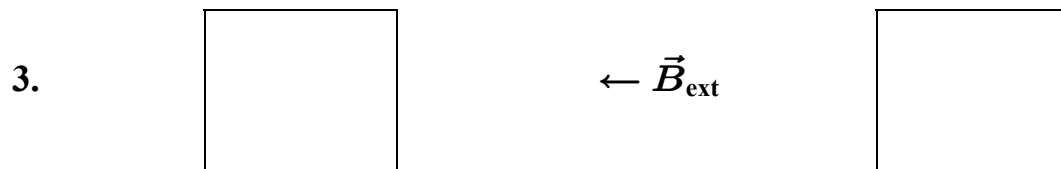
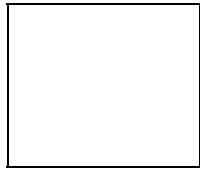


HOMEWORK for TUESDAY, JULY 12, 2005

For each of the following situations two circuit loops are shown in a uniform external magnetic field \vec{B} . Let the one on the left have a clockwise current and the one on the right have a counterclockwise current. Determine in each case the forces acting on each side of the current and determine if there is a net force or a net torque. If there is a net torque, determine how the loop will rotate, and describe how this is related to the directions of \vec{B}_{loop} and \vec{B}_{ext} .



4.



$\rightarrow \vec{B}_{\text{ext}}$



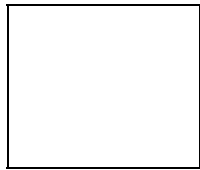
5.



$\uparrow \vec{B}_{\text{ext}}$



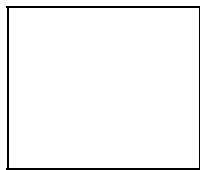
6.



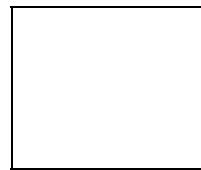
$\downarrow \vec{B}_{\text{ext}}$



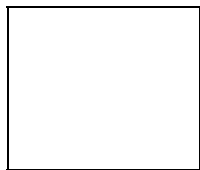
7.



$\nearrow \vec{B}_{\text{ext}}$



8.



$\searrow \vec{B}_{\text{ext}}$

