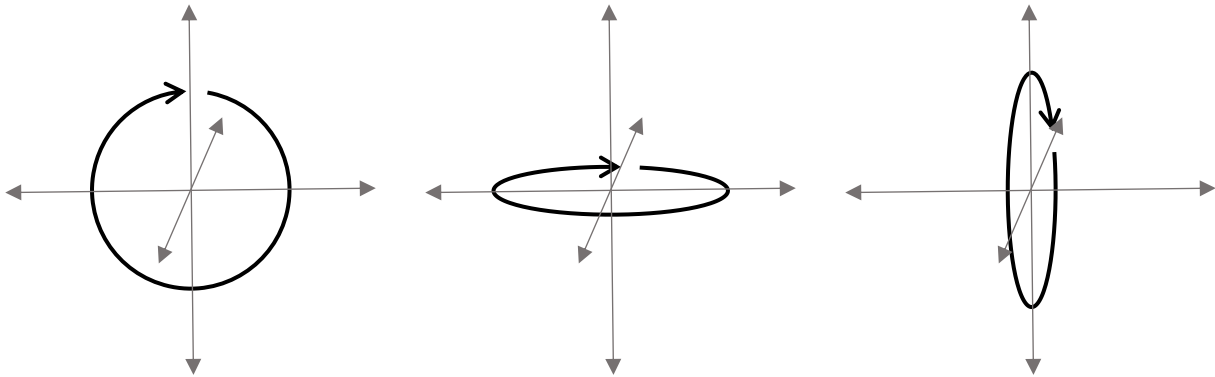

Laplace Force

1. A straight conducting wire carrying current I is immersed in a uniform magnetic field B . What current direction gives the greatest magnetic force on the wire?
2. How should vectors \vec{L} , \vec{W} , and \vec{B} be oriented to give the greatest magnitude to the vector $(\vec{L} \times \vec{W}) \times \vec{B}$?
3. How should vectors $\vec{\mu}$ and \vec{B} be oriented to give the greatest possible magnitude to $\vec{\mu} \times \vec{B}$?
4. What is the direction of the magnetic moments $\vec{\mu}$ of the current-carrying loops below?



5. What is the direction of the torque on the above loops from a magnetic field directed to the right?