

Quiz 6: Magnets and Such

1. A power cord for an electric appliance has two parallel wires carrying current. Is the magnetic force between the two wires attractive or repulsive? *Hint: you know the relative direction of the currents ...*

2. The magnetic field exerts a force on a (moving) charged particle, but doesn't do any work on them. Why? Recall $\vec{F}_B = q\vec{v} \times \vec{B}$ and $W = \vec{F} \cdot \Delta\vec{x}$.