

Quiz 21.2A

Two parallel wires are separated by 67.2 cm as shown below. Wire I_6 carries a current of 6.11 Amps. Wire I_3 carries a current of 3.25 Amps.

- a) Find the magnitude and direction of the magnetic force felt by a 1.00 meter long segment of wire I_6 due to the magnetic field of wire I_3 .
- b) Find the magnitude and direction of the magnetic field at point P.
- c) For a proton moving with a speed of 3.85×10^6 m/s in a direction 35.0° above +x, what is the magnitude and direction of the magnetic force it feels?

