

Physics 220 UnQuiz 5

Two wires of length L carry currents I_1 and I_2 and are separated by a distance w as shown. Answer the following.

(a) which direction are the magnetic fields directed (show by \times or \cdot in the circles)

(b) What is the magnitude of $B_{@1}$ from 2 and $B_{@2}$ from 1?

(c) Show the direction of the force on wire 1 and wire 2 with arrows and proper labels.

(d) If $I_1=I_2$, find the magnitude of the force on wire 1.

(e) if $I=1$ A and $w=1$ m, provide numerical answers with correct SI units for B and F .

