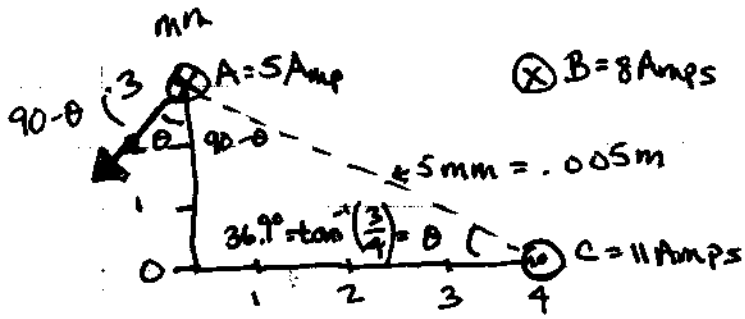

(A) $B_{\substack{\text{at A} \\ \text{due to C}}} = \frac{\mu_0 I}{2\pi r} = \frac{4\pi \times 10^{-7}(11)}{2\pi(.005)} = 4.4 \times 10^{-4}$ Tesla
53.1° below the negative x axis

(B) $F = ILB$ $\frac{F}{L} = IB = I_{\text{on A}} B_{\substack{\text{at A} \\ \text{due to} \\ B}} = \frac{I_A 4\pi \times 10^{-7} I_B}{2\pi(.004)}$

$= \frac{(5)4\pi \times 10^{-7}(8)}{2\pi(.004)} = 2 \times 10^{-3} \frac{N}{m}$ (negative x direction)

$B_{\substack{\text{at A} \\ \text{due to B}}}$ is directed up ↑ $F_{\substack{\text{on A} \\ \text{due to B}}}$ to [redacted] right

(C) $\frac{F}{L}_{\substack{\text{on A} \\ \text{due to C}}} = \frac{I_A 9\mu_0 I_C}{2\pi r} = \frac{(5)(4\pi \times 10^{-7})(11)}{2\pi(.005)} = 2.2 \times 10^{-3} \frac{N}{m}$

$F_{\substack{\text{on A} \\ \text{due to C}}}$ 36.9° above negative x axis

$\frac{F}{L}_{net} = \left(2 \times 10^{-3} - 2.2 \times 10^{-3} \cos 36.9°\right)\hat{x} + 2.2 \times 10^{-3} \sin 36.9° \hat{y}$