Show all work used to find the answer. Good luck.

1. Two long parallel wires separated by 5.0 mm each carry a current of 60 A. These two
currents are oppositely directed. What is the magnitude of the magnetic field at a point that is
between the two wires and 2.0 mm from one of the two wires?

All the equations you need - so far:

\[ \mathbf{a} \cdot \mathbf{b} = a \cdot b \cos \phi \]
\[ \mathbf{a} \times \mathbf{b} = a \cdot b \sin \phi \mathbf{\hat{n}} \]
\[ \mathbf{v} = \frac{d\mathbf{r}}{dt} \]
\[ \mathbf{F} = m\mathbf{a} \]
\[ \mathbf{F} = m\mathbf{v}^2/r \]
\[ \mathbf{F} = q\mathbf{v} \times \mathbf{B} \]
\[ d\mathbf{F} = i d\mathbf{L} \times \mathbf{B} \]
\[ \mu = n A \]
\[ B = \mu_0 i_0 n \quad \text{(solenoid)} \]
\[ \mathbf{B}(z) = \frac{\mu_0}{2\pi} \frac{\bar{\mu}}{\bar{z}^3} \]
\[ \mathbf{\tau} = \bar{\mu} \times \mathbf{B} \]