

ECE110 - Quiz #3

Only non-programmable calculators are allowed.

Duration: 30 Minutes

First Name: _____ Last Name: _____

Student #: _____ Tutorial Section: _____

Two infinitely long straight and thin wires carrying currents $i_1 = 5A$ and $i_2 = 2A$ are positioned parallel to the y-axis at $x = 2cm$ and $x = 5cm$ respectively as shown in the Figure below. A positive charge q travels in the opposite direction of y-axis at a distance $x = 3cm$ in a uniform $\vec{E} = 6\hat{i} V/m$.

Determine:

- Direction and Magnitude of the magnetic field along the path of charge q . [2.5 Marks]
- Magnitude of the velocity. [2.5 Marks]

