Charges in a B field

1. Draw the direction of the force for the following wires in magnetic fields.

2. A straight conductor of length 20cm is placed perpendicular to a magnetic field of flux density 10µT. Calculate the force on the conductor if a current of 5A flows through the conductor.

\[ F = BIL = 10 \times 10^{-6} \times 5 \times 0.2 \]
\[ = 10 \mu N \]

3. An electron enters a magnetic field as shown below. Draw a line showing its possible path.

Formulae
\[ F = Bil \]