
202: Principles of electrical science

Worksheet 10: Generation of an EMF

1. Calculate the induced EMF in a cable with an effective length of 0.25m, moving at a velocity of 5m/s through a magnetic field with a flux density of 1.6 teslas.
2. The EMF in a conductor of effective length 0.25m moving at right angles through a magnetic field at a velocity of 5m/s is 1.375 volts. Calculate the magnetic flux density.
3. In the diagram below, label the meaning of the thumb, first finger and second finger to represent Fleming's right hand generator rule.

