202: Principles of electrical science  
**Worksheet 11: Force on current-carrying conductor**

**Answer guide**

1. A straight conductor 10m in length and carrying a current of 10A is situated in and at right angles to a uniform magnetic field of flux density 0.2 Wb/m2. Determine the force exerted upon the conductor.

20N

1. A conductor 0.25m in length situated in and at right angles to a magnetic field experiences a force of 5N when the current flowing through it is 50A. Determine the flux density of the magnetic field.

0.4 tesla

1. In the diagram below label the meaning of the thumb, first finger and second finger to represent Fleming’s left hand motor rule.

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