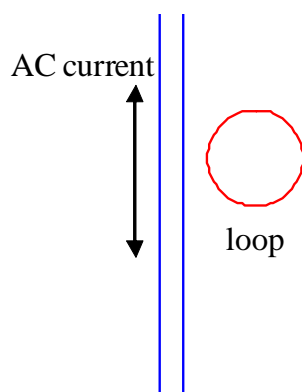


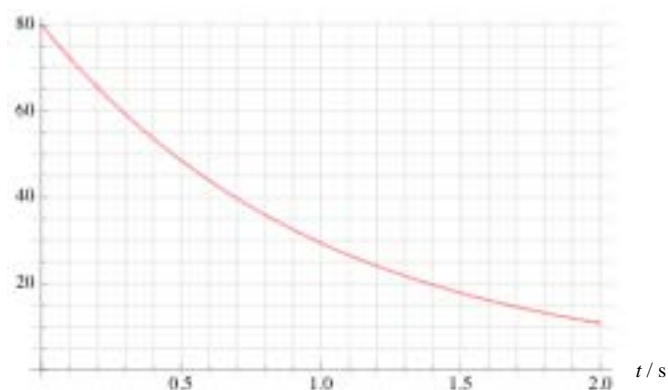
Support Worksheet – Topic 5, Worksheet 6

- 1 Define magnetic flux and magnetic flux linkage. [2]
- 2 State Faraday's law. [2]
- 3 The flux linkage in a coil changes from 0.25 Wb to 0.60 Wb in 0.80 s. Calculate the average emf induced in the coil. [2]
- 4 An alternating current is established in a wire as shown.



- A coil is placed near the wire so that the loop and the wire are on the same plane. Explain why a current will be established in the loop. [2]
- 5 The magnetic flux (in Wb) in a loop consisting of 50 turns of wire varies with time (in s) as shown in the graph.

Flux / Wb



- a State the time at which the induced emf is a maximum. [1]
- b Calculate the average emf induced in the loop. [2]