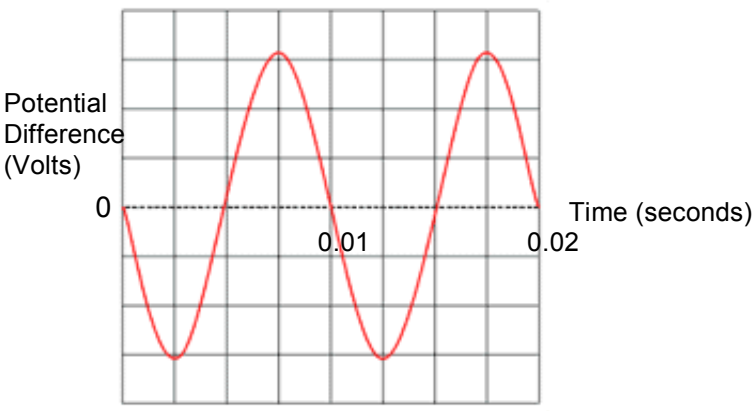
1 Describe the difference between an alternating current (a.c.) and a direct current (d.c.).

Alternating current - changes direction [1 mark]
Direct current - goes in one direction only [1 mark]

(2 marks)

1 (a) An oscilloscope can be used to display the changes in potential difference over time for a supply of electricity. The diagram shows the display from an oscilloscope for a supply of alternating current.



1 (a) (ii) Use the graph to determine the period of oscillation for the supply.

0.01 [1 mark]

This is just read off the graph. Remember, the period is the time taken for one complete cycle.

(1 mark)

1 (a) (iii) Use the graph to calculate the frequency of the supply as shown by the oscilloscope trace.

Frequency = 1 / period

1 / 0.01 [1 mark]

100 [1 mark]

Frequency ..... Hz

(2 marks)

1 (a) (iv) What is the frequency of mains electricity supply in the UK?

.....50 Hz [1 mark] .....

(1 mark)

(Total 6 marks)