

P5 Electric circuits revision questions

1	What voltage is UK mains supplied at ?
2	UK mains supply operates at 50Hz a.c. What does this mean ?
3	Sketch a graph of current vs time for a d.c supply.
4	What colour is the live wire in a UK mains plug ?
5	The peak voltage of mains electricity is 325V. Between which two values does the live wire change between ?
6	Why is the earth pin on a mains plug longer than the other two pins ?
7	Which wire is connected through a fuse in a plug ?
8	Why might an appliance not need an earth wire ?
9	A fuse has a 13A rating. What does this mean?
10	A 12W bulb is used for 2 minutes. How much electrical energy has been transferred ?
11	How is an appliance made safe when the live wire touches the metal case ?
12	What would happen if a 5A fuse were fitted to a 10A device ?
13	What current will flow if a 1500W mains (230V) washing machine was in operation ?
14	If each kWh of electricity costs 12p. How much will it cost to run a 2000W heater for 3 hours ?

15	Write in the correct unit next to each quantity	16	Why is it better to transport electricity across the National grid at high voltage and low current ?	17	
	Charge				
	Current				
	Time				
	Resistance				
	Potential difference				
	Power				
	Energy				

Alternating Current (AC)

What is the frequency of this a.c supply ?