

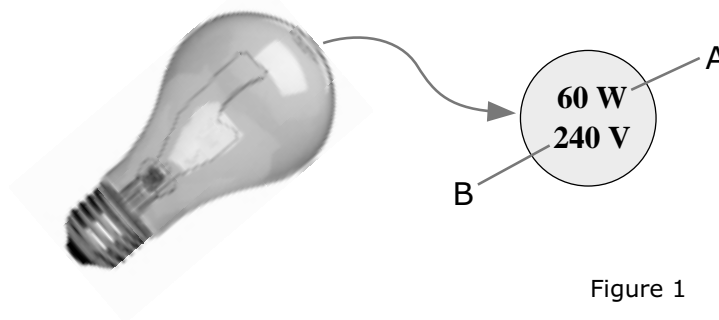
Electrical Power 1

Name & Set

1 Copy and complete the table.

	Device	from	to
1	An electric fire	electrical energy	radiant energy
2	A filament lamp		
3	A heating element in a kettle		
4	An electric motor		
5	A loudspeaker		

2 What important information do the quantities A and B in figure 1 tell you about the light bulb?



A means _____ [1]

B means _____ [1]

3 An electrical drill is rated at 500W, 240 V.

(a) What current does the drill draw from the mains supply?

 _____ [2]

(b) How much energy does the drill transfer if it is used for 3 minutes?

 _____ [2]

(c) Into what form of energy does a drill convert electrical energy?

_____ [1]

4 (a) How much electrical power can be transferred by a current of 5 amps at 240 V?

[2]

(b) How many 60W light bulbs could be operated from this supply?

[2]

5 Fill in the missing values for the appliances in the table below. Available fuses are rated as follows: 3A, 5A and 13 A.

	Appliance	power	p.d.	current	correct fuse
A	car headlamp	48W	12V		
B	T.V.	200W	240V		
C	hairdryer		240V	2A	
D	iron	960W	240V		
E	kettle		240V	10A	
F	immersion heater	3000W	240V		

Show all working in the spaces below.

A _____
_____ [2]

B _____
_____ [2]

C _____
_____ [2]

D _____
_____ [2]

E _____
_____ [2]

F _____
_____ [2]