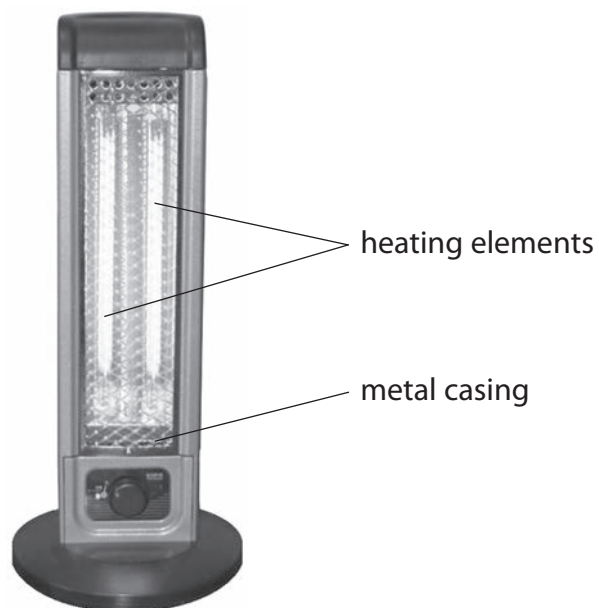


6 The photograph shows an electric heater.



(a) The power of the heater is 2000 W.

The heater is connected to a 230 V mains supply.

(i) State the equation linking power, current and voltage.

(1)

(ii) Calculate the current in the heater.

(2)

current = A

(iii) Which of these fuses should be used with the heater?

(1)

- ☐ A 1A
- ☐ B 5A
- ☐ C 7A
- ☐ D 13A



(b) The two heating elements can be connected in series or in parallel.

Describe an advantage of each method.

(2)

series

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parallel

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(c) Some electrical appliances are fitted with an earth wire.

(i) Describe how an earth wire acts as a safety feature.

(4)

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(ii) Explain why this heater should be fitted with an earth wire.

(2)

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(Total for Question 6 = 12 marks)

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