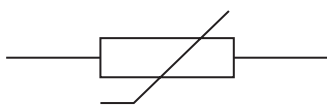
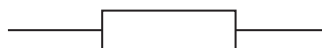


2 This question is about electricity.

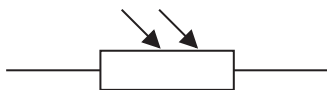
(a) The diagram shows some electrical circuit symbols.



A



B



C



D

(i) Which symbol represents a light dependent resistor (LDR)?

(1)

☐ **A**

☐ **B**

☐ **C**

☐ **D**

(ii) Which symbol represents a fixed resistor?

(1)

☐ **A**

☐ **B**

☐ **C**

☐ **D**

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



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(b) An electric heater connected to the mains supply has a power of 2200 W.

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

(1)

(ii) Show that the current in the electric heater is approximately 10 A.
[mains supply voltage = 230 V]

(2)

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

(1)

☐ **A** 3 A

☐ **B** 5 A

☐ **C** 7 A

☐ **D** 13 A

(iv) Explain how the fuse protects the electric heater when the current in the electric heater is too high.

(2)

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(Total for Question 2 = 8 marks)

