

- 3 The photograph shows an extension cable on a reel.



There is a warning label on the reel.

<p style="text-align: center;">WARNING</p> <p style="text-align: center;">maximum allowable power</p> <p style="text-align: center;">when cable fully extended – 2400 W, 240 V</p> <p style="text-align: center;">when cable coiled up – 700 W, 240 V</p>
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- (a) (i) State the equation linking power, current and voltage.

(1)

- (ii) Complete the table by inserting the missing value.

(1)

Power in W	Voltage in V	Current in A
700	240	
2400	240	10



(b) The extension cable is fitted with a 13 A fuse.

(i) Describe how the fuse protects the cable.

(3)

(ii) Explain why a 5 A fuse is **not** suitable for this extension cable.

(2)

(iii) Suggest why the maximum recommended current is lower when the cable is coiled up.

(1)

(Total for Question 3 = 8 marks)

