

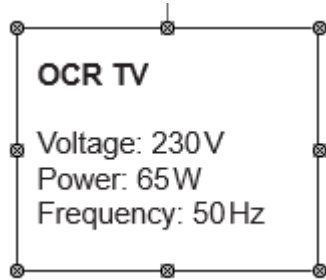
GCSE Physics A (Gateway)

J249/03 Physics A P1-P4 and P9 (Higher Tier)

Question Set 10

1

A TV has the label below on it.



(a) Calculate the **current** in the TV when it is turned on.

Use the equation: power = potential difference \times current

Give your answer to 2 significant figures.

$$65 = 230 I$$

$$I = \frac{65}{230} = 0.2826086957 \approx 0.28 \text{ (2sf)}$$

$$\text{Current} = \dots\dots\dots 0.28 \dots\dots\dots \text{ A}$$

[4]

(b) The TV is turned on for 30 minutes.

Calculate the energy transferred by the TV.

$$P = \frac{E}{t} \rightarrow Pt = E$$

$$65 \times (30 \times 60) = E$$

$$117000 = E$$

$$1.2 \text{ 0000 (2sf)}$$

$$\text{Energy used} = \dots\dots\dots 1.2 \times 10^5 \dots\dots\dots \text{ J}$$

[4]

Total Marks for Question Set 10: 8

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