

GCSE Physics A (Gateway)

J249/04 Physics A P5-P8 and P9 (Higher Tier)

Question Set 6

1 (a) A TV has a power rating of 0.2 kW.

Calculate the energy transferred, in kWh, if the TV is switched on for 4 hours.

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

$$Pt = E$$

$$0.2 \times 4 = 0.8$$

Energy transferred = 0.8 kWh

[3]

(b) A different TV works with a 12.0 V battery. It has a current of 3.19 A.

Calculate the power rating of the TV.

$$P = IV$$

$$12 \times 3.19$$

$$= 38.28$$

Power = 38.3 W

(3 sf)

[3]

Total Marks for Question Set 6: 6

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