



2018 28c Every day, a 1200-watt microwave oven is used for 45 minutes at 40% power. Electricity is charged at \$0.25 per kWh.
What is the cost of running this microwave oven for 180 days?

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$$\begin{aligned}\text{Energy at 40\%} &= 1200 \div 1000 \times 0.4 \\ &= 0.48 \qquad \therefore 0.48 \text{ kWh}\end{aligned}$$

Also, 45 minutes = 0.75 hour.

$$\begin{aligned}\text{Cost} &= 0.48 \times 0.75 \times 0.25 \times 180 \\ &= 16.2\end{aligned}$$

\therefore the cost is \$16.20.

State Mean: 1.8/3

* These solutions have been provided by [projectmaths](http://projectmaths.com.au) and are not supplied or endorsed by NESA.

NESA: Marking Feedback

Students should:

- clearly link their steps of working together

In better responses, students:

- used percentages correctly

Area for students to improve include:

- converting watts to kilowatts