

- 3 A 1.5 V cell supplies 0.20 A to a lamp for seven hours before the lamp goes out.

What is a sensible estimate for the initial chemical energy content of the cell?

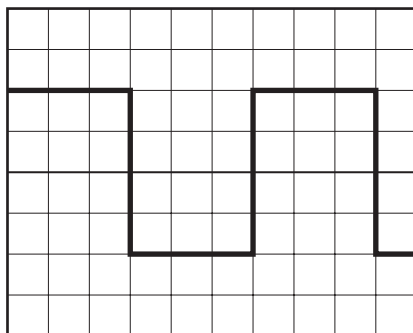
- A 1×10^2 J B 1×10^4 J C 1×10^6 J D 1×10^8 J

- 4 Three of these quantities have the same unit.

Which quantity has a different unit?

- A $\frac{\text{energy}}{\text{distance}}$
B force
C power \times time
D rate of change of momentum

- 5 A cathode-ray oscilloscope displays a square wave, as shown in the diagram.



The time-base setting is 0.20 ms per division.

What is the frequency of the square wave?

- A 8.3 Hz B 830 Hz C 1300 Hz D 1700 Hz

Space for working