Electrical Energy Worksheet

1. Calculate the energy released from a battery in a hand vacuum cleaner that was turned on for 45 s. The voltage drop was 6 V and the current was 0.30 A (Answer in Joules)
2. Calculate the energy released from a portable radio using a 9 V battery. The current was 0.5 A and it operated for 2.5 h. (Answer in watt hours).
3. Calculate the energy released (in joules) from a 9 V battery that operated an alarm bell for 5 minutes. A current of 0.15 A flowed through the bell.
4. Calculate the energy released (in joules) from a 12 V car battery as it operated a starter motor. The current flowing through the motor was 350 A and the motor operated for 7.5 s.
5. Calculate the energy released from an electric drill. The drill was switched on for 3 minutes. The voltage drop was 9 V and the current was 1.4 A (Answer in joules).
6. Calculate the energy released from a portable hedge trimmer using a 12 V battery. The current flowing in the motor was 2.8 A and it operated for 20 minutes (Answer in watt hours).