

## Mark schemes

**Q1.**

- (a) there is a gap in the circuit  
**or**  
 $S_1$  needs to be closed to complete the circuit  
**or**  
 $S_1$  needs to be closed to turn the hair straighteners on  
1
- (b) the total resistance of the circuit decreases  
1
- so the current increases  
1
- which increases the power output  
1
- [4]**