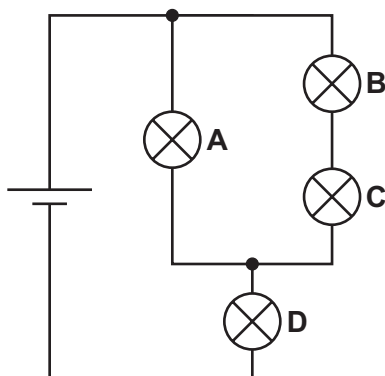
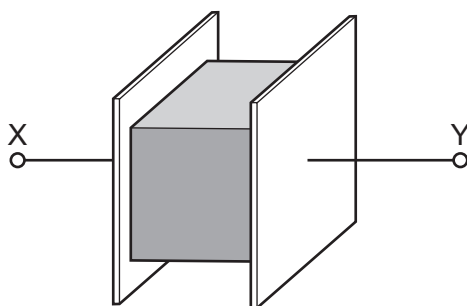


32 A student builds the circuit shown. All the lamps are identical.

Which lamp dissipates the most power?



33 The resistance of a metal cube is measured by placing it between two parallel plates, as shown.



The cube has volume V and is made of a material with resistivity ρ . The connections to the cube have negligible resistance.

Which expression gives the electrical resistance of the metal cube between X and Y?

A $\rho V^{\frac{1}{3}}$

B $\rho V^{\frac{2}{3}}$

C $\frac{\rho}{V^{\frac{1}{3}}}$

D $\frac{\rho}{V^{\frac{2}{3}}}$