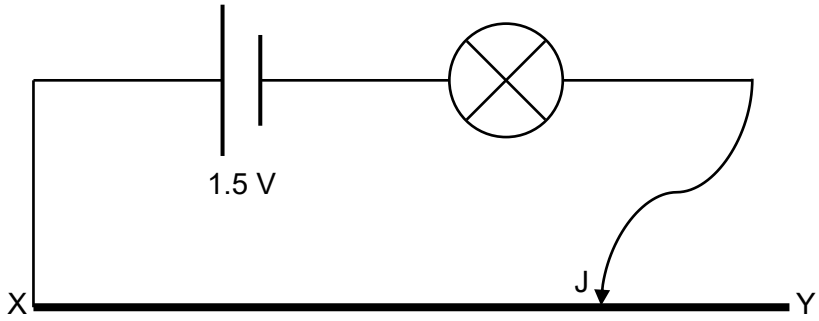
22 A cell of e.m.f. 1.5 V of negligible internal resistance is connected in series with a lamp of resistance 10 Ω which is in turn connected to a resistance wire XY of length 1.00 m with total resistance 20 Ω via a movable jockey J.



When J is at X, the power of the lamp is *P*.

Assuming that the resistance of the lamp remains constant, what is the power of the lamp when the length XJ is 0.50 m?

A 0.13 *P* **B** 0.25 *P* **C** 0.50 *P* **D** 0.75 *P*