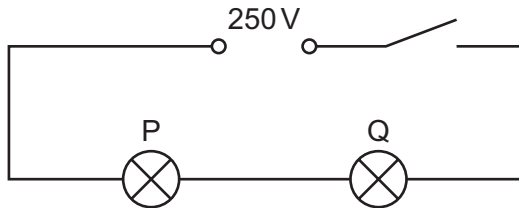


- 31** In the circuit shown, lamp P is rated 250 V, 50 W and lamp Q is rated 250 V, 200 W. The two lamps are connected in series to a 250 V power supply.



Assume that the resistance of each lamp remains constant.

Which statement most accurately describes what happens when the switch is closed?

- A** Lamp P emits four times as much power as lamp Q.
- B** Lamp P emits twice as much power as lamp Q.
- C** Lamp Q emits four times as much power as lamp P.
- D** Lamp Q emits twice as much power as lamp P.