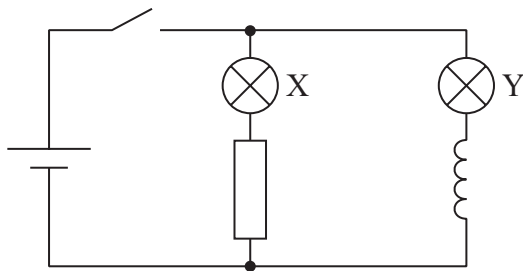


7

A circuit is set up as shown in the diagram. Lamps X and Y are identical. The coil has a soft iron core. The resistor and the coil have the same resistance.



The switch is closed and lamp X lights instantly.

Which statement best describes lamp Y after the switch is closed?

- ☐ **A** Lights after a delay with a final brightness less than X
- ☐ **B** Lights after a delay with a final brightness the same as X
- ☐ **C** Lights instantly with less brightness than X
- ☐ **D** Lights instantly with the same brightness as X

(Total for Question 7 = 1 mark)