

- 21** An electric current flowing through a wire produces a magnetic field around the wire. Four wires carrying identical currents are shown placed at the corners of a square. Each wire produces a field of flux density  $B$  at the centre of the square. The symbol  $\otimes$  indicates a current flowing along the wire into the page, and the symbol  $\odot$  indicates a current flowing along the wire pointing out of the page. What is the magnetic field at the centre of the square?



- A**    0        **B**    2.8 B        **C**    3.2 B        **D**    4.0 B