

- 26** In an experiment to measure the strength of the Earth's magnetic field, a student makes a square coil of wire that measures 20 m by 20 m. The coil consists of 10 turns and rests horizontally on the ground.

The vertical component of the Earth's flux density is  $2.1 \times 10^{-5} \text{ T}$ .

What is the magnetic flux linkage enclosed by the coil?

- A**  $8.4 \times 10^{-3} \text{ T m}^{-2}$
- B**  $8.4 \times 10^{-3} \text{ T m}^2$
- C**  $8.4 \times 10^{-2} \text{ T m}^{-2}$
- D**  $8.4 \times 10^{-2} \text{ T m}^2$

- 27** A sinusoidal alternating current produces an average power  $P$  in a resistor of resistance  $R$ .