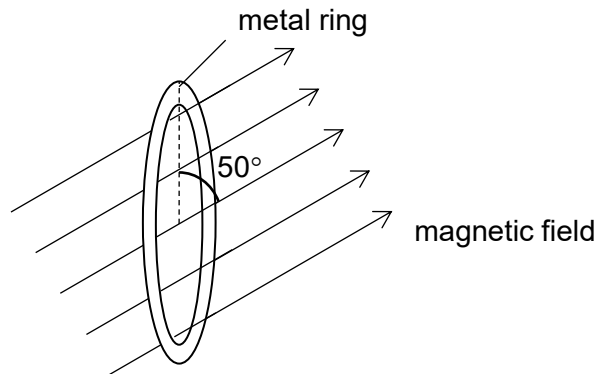


- 23** A uniform magnetic field directed at 50° to the plane of a circular metal ring passes through the ring of diameter 0.50 m and resistance $3.0\ \Omega$, as shown in the diagram.



The magnetic flux density through the ring decreases by $4.0 \times 10^{-5}\text{ T}$ at a constant rate in 2.0 s . During this change, what is the current induced in the ring?

- A** It remains constant at $1.0\ \mu\text{A}$.
- B** It remains constant at $1.3\ \mu\text{A}$.
- C** It increases from zero to $1.0\ \mu\text{A}$ at a constant rate.
- D** It increases from zero to $1.3\ \mu\text{A}$ at a constant rate.