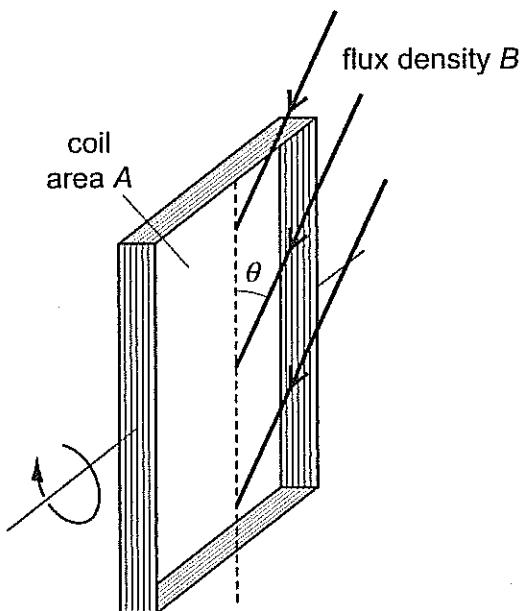


**32** A coil has area  $A$  and  $n$  turns.

A uniform magnetic field of flux density  $B$  acts at an angle  $\theta$  to the plane of the coil, as shown.



What is the change in magnetic flux linkage when the coil rotates so that the angle  $\theta$  is reduced to zero?

- A**  $BA_n \cos\theta$     **B**  $BA_n \sin\theta$     **C**  $2BA_n \cos\theta$     **D**  $2BA_n \sin\theta$