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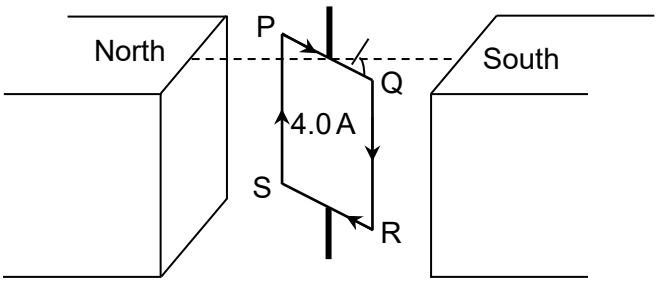
A square coil PQRS has 10 turns and sides 0.20 m as shown. The coil carries a current of 4.0 A and is placed in a uniform magnetic field of flux density 0.80 T.



What is the torque acting on the coil when side PQ makes an angle (of 40° with the magnetic field?

A

0.53 N m

B

0.63 N m

C

0.82 N m

D

0.98 N m