Magnetic Force Application (7)

The rectangular 20-turn loop of wire is 10cm high and 5cm wide.
It carries a current $I = 0.1$A and is hinged along one long side.
It is mounted with its plane at an angle of 30° to the direction of a uniform magnetic field of magnitude $B = 0.50$T.

- Calculate the magnetic moment μ of the loop.
- Calculate the torque τ acting on the loop about the hinge line.