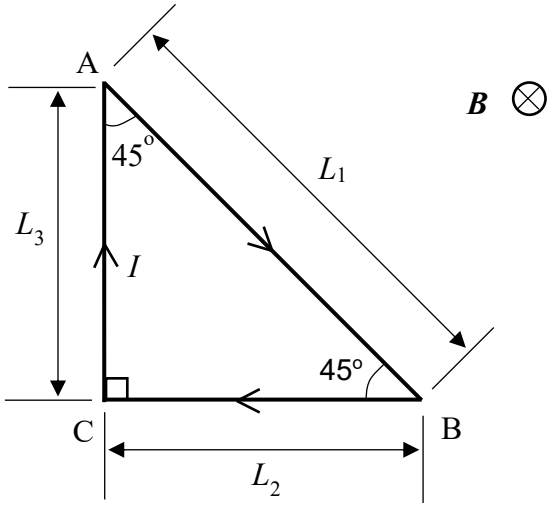
22 A triangular coil ABC is placed in a uniform magnetic field of flux density B = 1.8 T directed into the page. The coil carries a current I = 0.14 A. The lengths of sides AB, BC and CA are L_1 , L_2 and L_3 respectively, where L_1 = 2.0 m. BC is horizontal while CA is vertical. AB is inclined at 45° to the vertical.



Determine the magnitude of the resultant magnetic force experienced by the coil.

A 1.19 N **B** 0.18 N **C** 0.94 N **D** zero