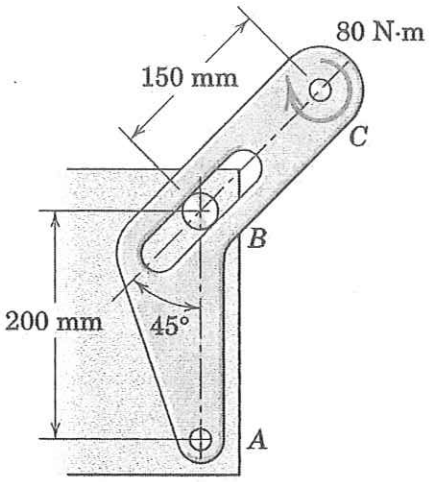
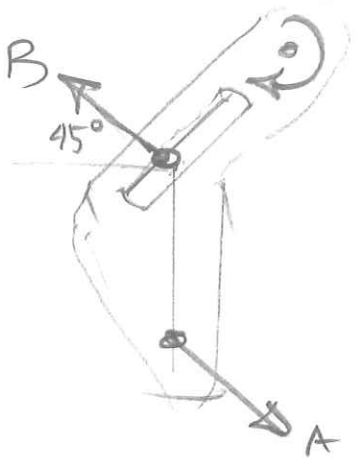
Light bracket *ABC* is freely hinged at *A* and constrained by the fixed pin in a smooth slot at *B*. Determine the magnitude and direction of the force supported by pin *B* under the action of the 80 N-m couple at *C*.





$M = 80\ N\text{-}m$

NOTE A + B FORM A COUPLE

$\Sigma M_A = 0$

$B_x(200\ mm) = M$

$B \cos 45\,(.2\ m) = 80\ N\text{-}m$

$B = 565\ N$

$\bar{B} = 565\ N \circlearrowleft 45^\circ \nwarrow$