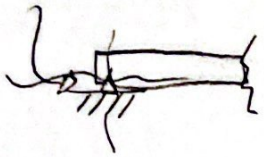
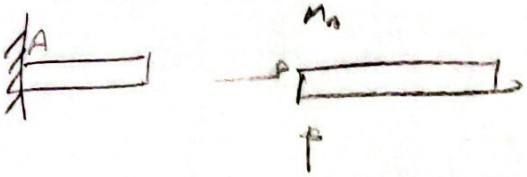
APSC - 182

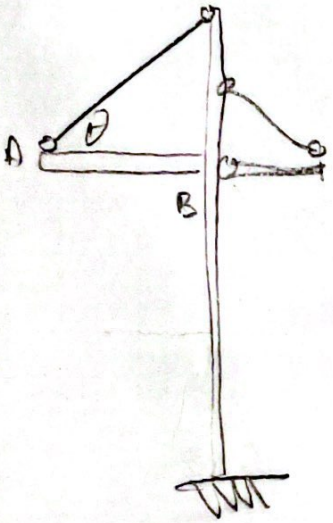
Pin support

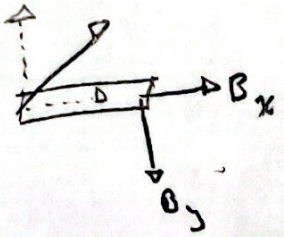


Roller support

Fixed





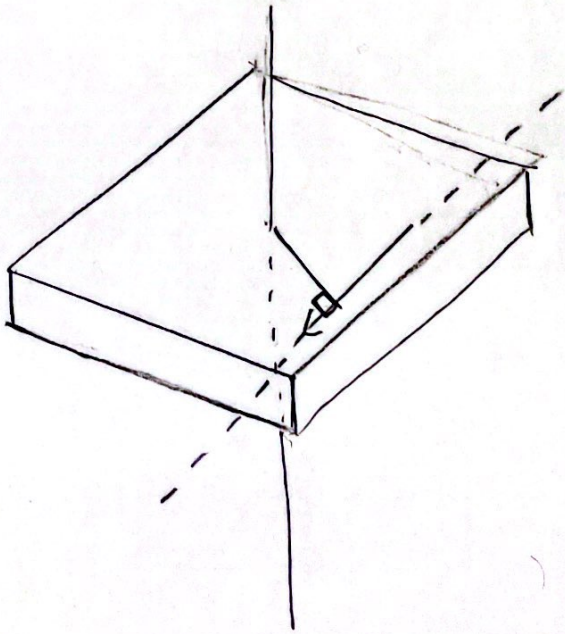


for equilibrium

$\Sigma F_x = 0$

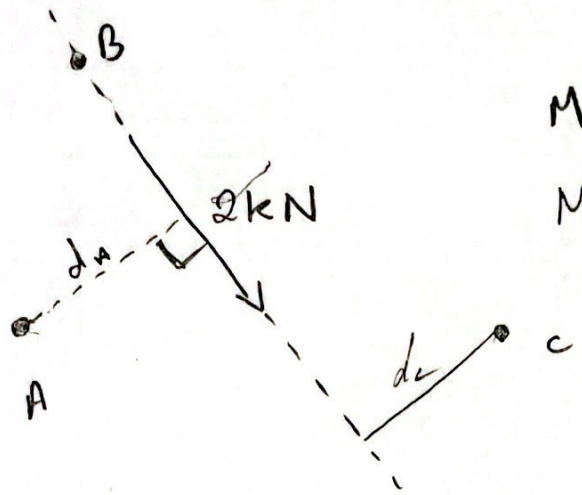
$\Sigma F_y = 0$

$\Sigma M_o = 0$



line of action, (line extended from force)

d_A = dist

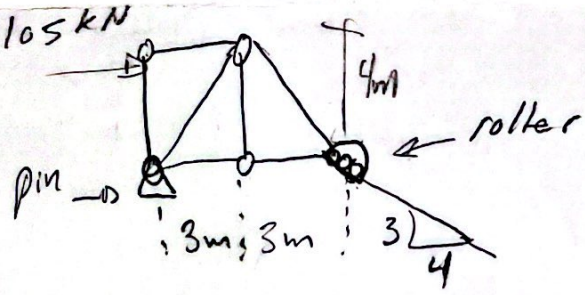


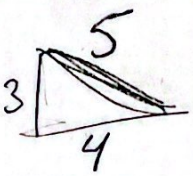
ccw +ve

$M_B = 0$

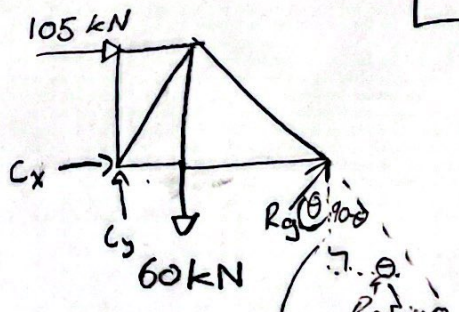
$M_A = (2\,kN)\,d_A(-1)$ for direction of rotation

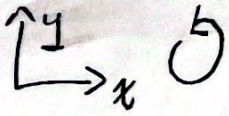
ex.





FBD





$\Sigma M_G = 0$ R reference point

$+60(3) - (C_y)(6) - (105)(4) = 0$

Now we can solve for C_y