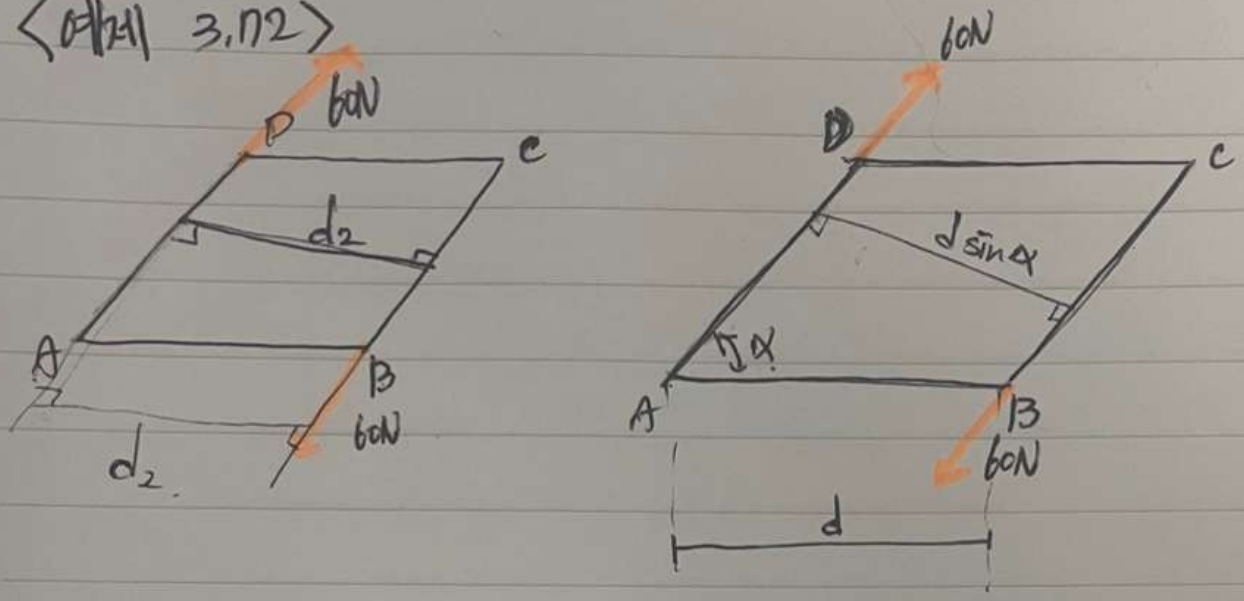
<예제 3.12>



(a) $M_1 = d_1 F_1 \rightarrow d_1 = 400mm,\ F_1 = 105N$

$M_1 = (400mm)(105N) = 42000N\cdot mm = 42Nm$

(b) $M_1 + M_2 = 0$

$42Nm - d_2(60N) = 0 \Rightarrow d_2 = 0.7m = 700mm$

(c) $M_{total} = M_1 + M_2$

$-9Nm = 42Nm - (1.05m)(\sin\alpha)(60N)$

$-51Nm = -63Nm\cdot(\sin\alpha)$

$\sin\alpha = 0.809524$

$\alpha = 54.049^\circ$

$\fallingdotseq 54.0^\circ$