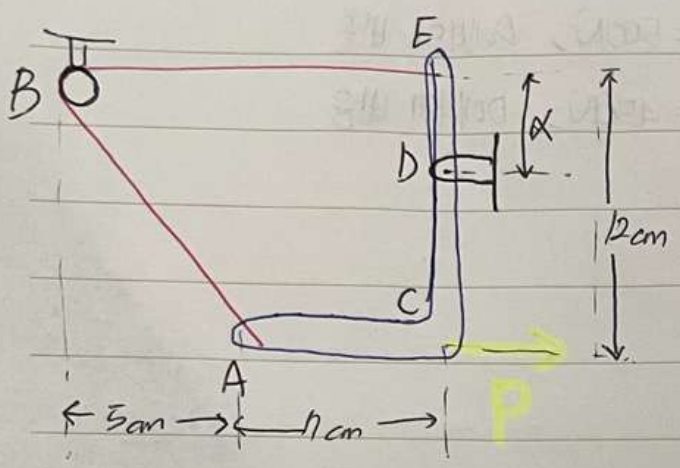
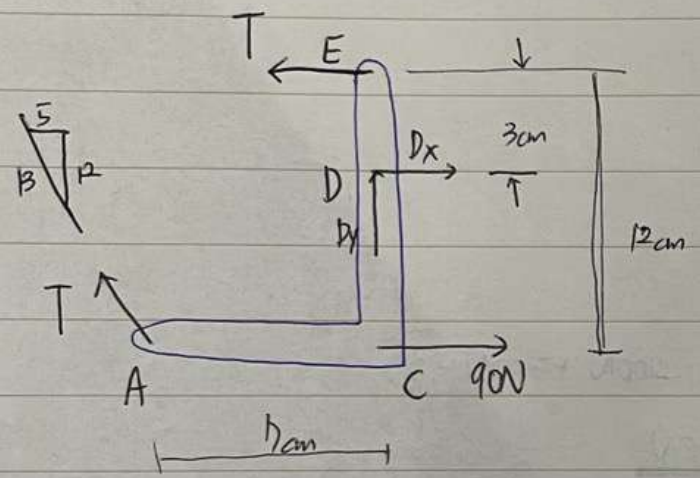
<예제 4.33>



$\alpha = 3cm$ 일 경우

(a) 케이블의 텐션을 구하라

(b) D에서의 반응을 구하라.

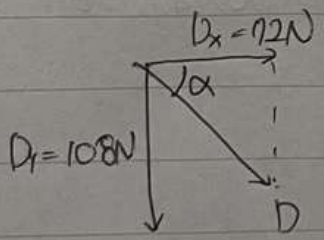


(a) $+\circlearrowleft \Sigma M_D = 0 : (90N)(9cm) - \frac{5}{13}T(9cm) - \frac{12}{13}T(9cm) + T(3cm) = 0$

$T = 117N$

(b) $\pm \Sigma F_x = 0 : D_x - 117N - \frac{5}{13}(117N) + 90 = 0$

$D_x = 72N$



$+\uparrow \Sigma F_y = 0 : D_y + \frac{12}{13}(117N) = 0$

$D_y = -108N$

$D = 129.8N \searrow 56.3°$