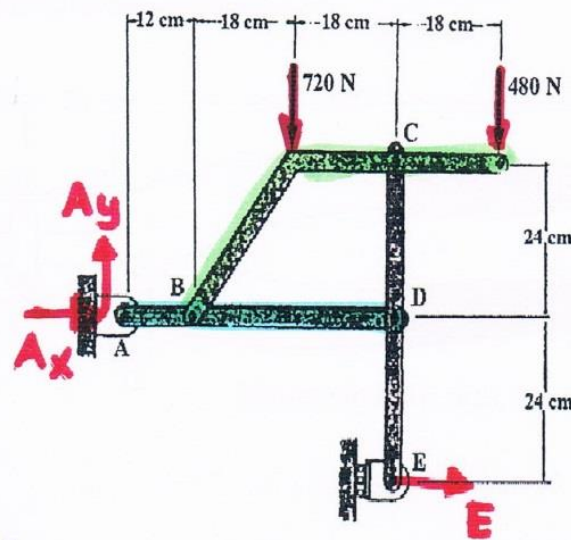
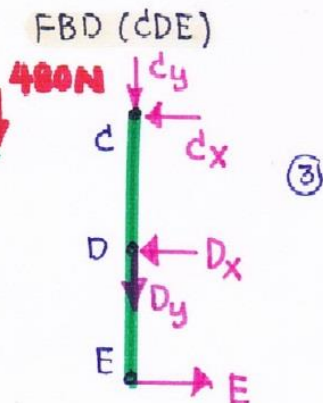
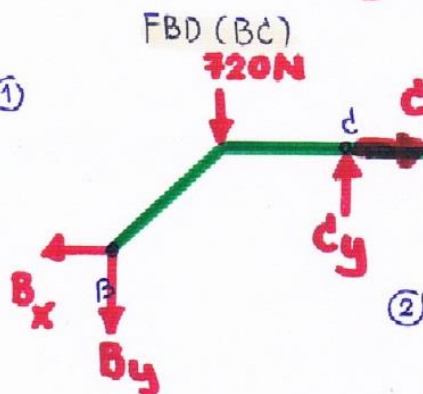
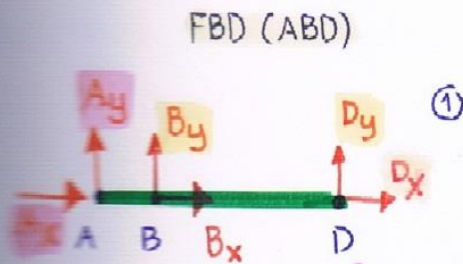


บอกทุกแรงบน ABD
2.1 (10 คะแนน) จงหาแรงต่างๆที่กระทำต่อชิ้นส่วน ABD ของเฟรมในรูป



ชิ้น ABD	
$A_x = 2220 \text{ N}$	←
$A_y = 1200 \text{ N}$	↑
$B_x = 2220 \text{ N}$	←
$B_y = 1600 \text{ N}$	↓
$D_x = 4440 \text{ N}$	→
$D_y = 400 \text{ N}$	↑



ป.๑ : $\sum M_A = 0 : E(24) - 720(30) - 480(66) = 0 \rightarrow E = 2220 \text{ N}$

$\rightarrow \sum F_x = 0 : A_x + E = 0 \rightarrow A_x = -2220 \text{ N}$

$+\uparrow \sum F_y = 0 : A_y - 720 - 480 = 0 \rightarrow A_y = 1200 \text{ N}$

ป.๒ : $\sum M_B = 0 : -A_y(12) + D_y(36) = 0 \rightarrow D_y = 400 \text{ N}$

$+\uparrow \sum F_y = 0 : A_y + B_y + D_y = 0$
 $1200 + B_y + 400 = 0 \rightarrow B_y = -1600 \text{ N}$

ป.๓ : $\sum M_C = 0 : E(48) - D_x(24) = 0 \rightarrow D_x = 4440 \text{ N}$

ป.๔ : $\sum F_x = 0 : A_x + B_x + D_x = 0$

$(-2220) + B_x + 4440 = 0 \rightarrow B_x = -2220 \text{ N}$