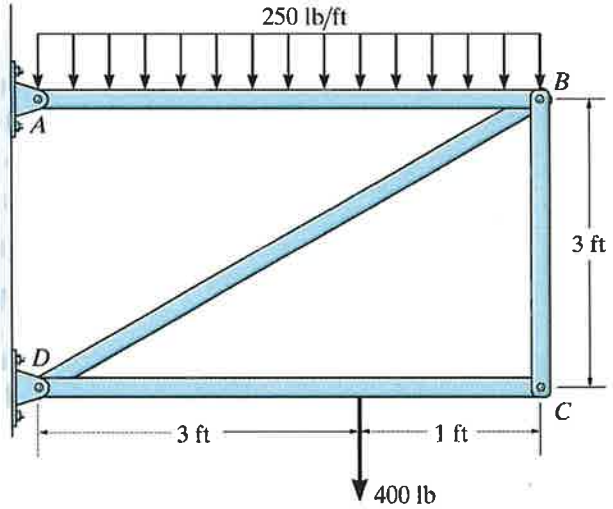
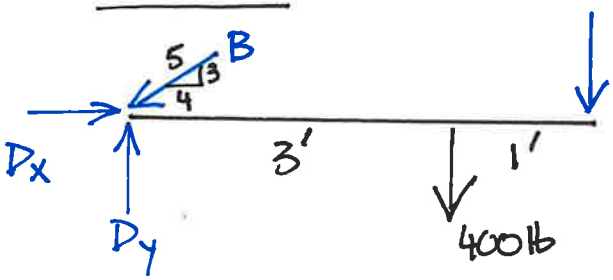
Problem 2a-6: Find the reactions at *A* and *D*.



FBD DC



① $\circlearrowleft +\sum M_D = 0$

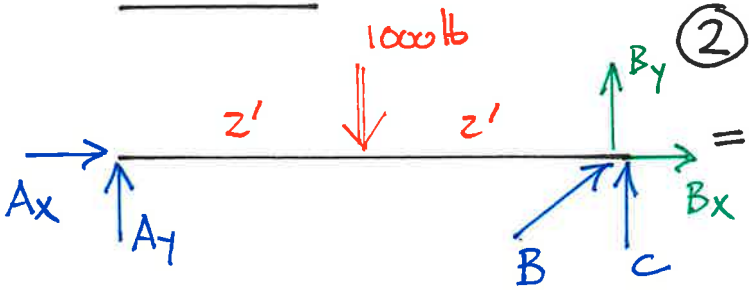
$= -400\text{lb}(3') - C(4')$

$C = -300\text{lb}$

③ $+\uparrow \sum F_y = D_y - B_y - 400\text{lb} - C$ $\quad D_y = 900\text{lb}$

④ $\pm \rightarrow \sum F_x = 0 = D_x - B_x$ $\quad D_x = 1{,}066\text{lb}$

FBD AB



② $\circlearrowleft +\sum M_A = 0$

$= -1000\text{lb}(2') + C(4')$

$+\frac{3}{5}B(4')$

$B = 1{,}333\text{lb}$

⑤ $+\uparrow \sum F_y = 0 = A_y + B_y + C - 1000\text{lb}$ $\quad A_y = 500\text{lb}$

⑥ $\pm \rightarrow \sum F_x = 0 = A_x + B_x$ $\quad A_x = -1{,}066\text{lb}$