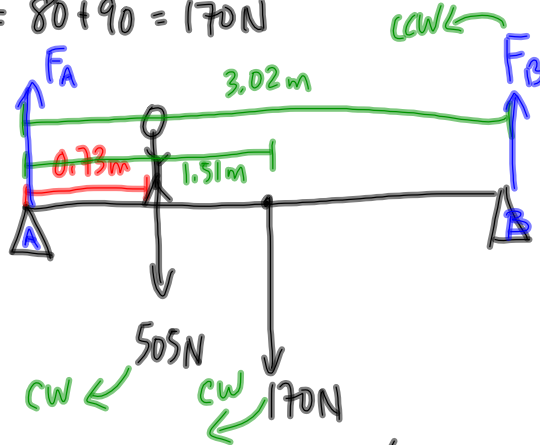


A Bridge Problem

$$F_{\text{pat}} = 505\text{N}$$

$$F_{\text{plank}} = 80 + 90 = 170\text{N}$$



Choose A as the Pivot (be sure to specify)

$$\sum \tau_{\text{ccw}} = \sum \tau_{\text{cw}}$$

$$\tau_B = \tau_{\text{pat}} + \tau_{\text{plank}}$$

$$(3.02\text{m})F_B = (0.73\text{m})(505\text{N}) + (1.51\text{m})(170\text{N})$$

$$(3.02\text{m})F_B = 625.35\text{ N}\cdot\text{m}$$

$$F_B = 207\text{N}$$

Since $F_{\text{net}} = 0$,

$$F_{\text{pat}} + F_{\text{plank}} = F_A + F_B$$

$$505\text{N} + 170\text{N} = F_A + 207\text{N}$$

$$F_B = 207\text{N}$$

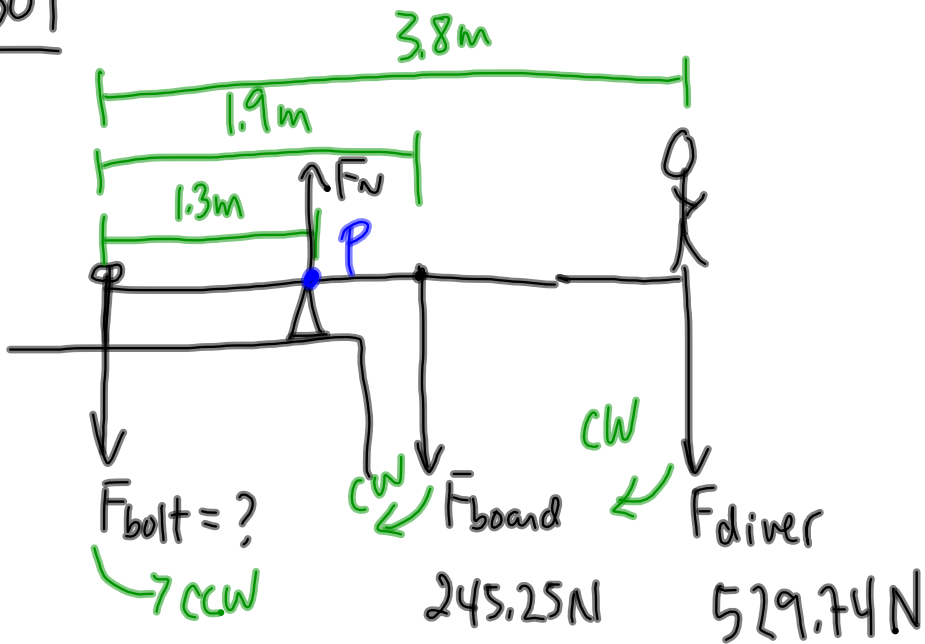
$$F_A = 468\text{N}$$

Actually: 205N

490N

PP(SU)

31.



Choose the fulcrum as the pivot (P):

$$\sum \tau_{ccw} = \sum \tau_{cw}$$

$$\tau_{bolt} = \tau_{board} + \tau_{diver}$$

To Do: ① FoP | 6-3 | 5, 6, 7

② Assignment: FoP | (15, 16, 18, 21, 22)

DUE WED

24, 25, 27, 34, 35, 36

for qw

← $F_{net} = 0$