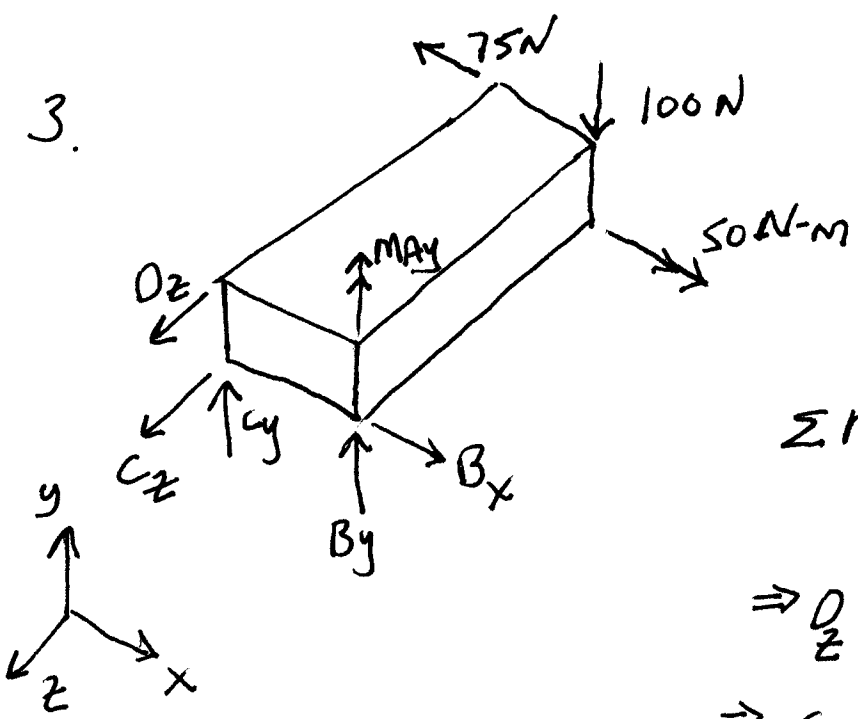


3.



$$\sum F_x = -75 + B_x = 0$$

$$\sum F_y = -100 + B_y + C_y = 0$$

$$\sum F_z = C_z + D_z = 0$$

$$\sum M|_{C_x} = 50 - 100(.3) + D_z(.03) = 0$$

$$\Rightarrow D_z = \frac{30 - 50}{.03} = -667 \text{ N}$$

$$\Rightarrow C_z = 667 \text{ N}$$

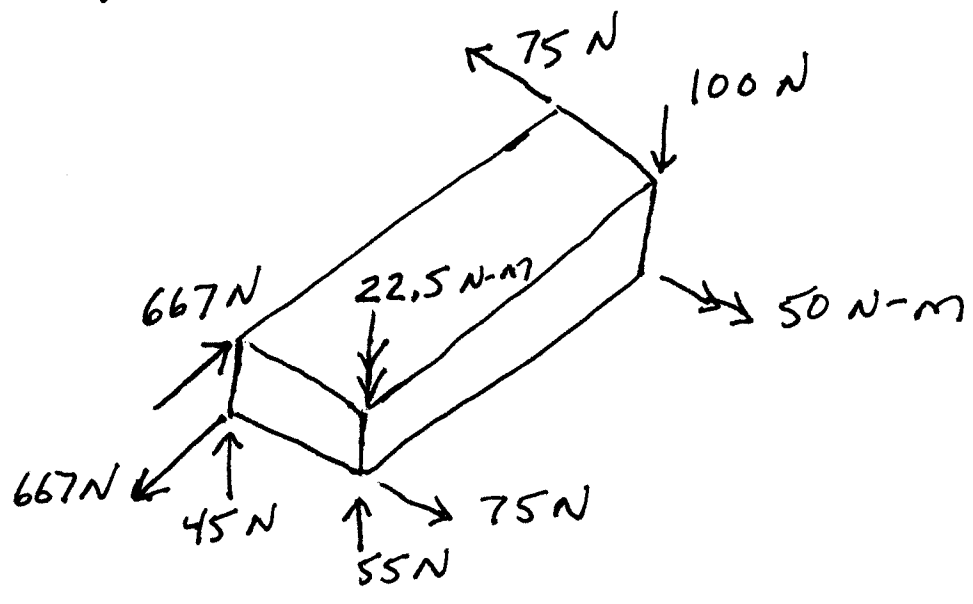
$$\sum M|_{A_y} = 75(.3) + D_z(.05) + C_z(.05) + M_{Ay} = 0$$

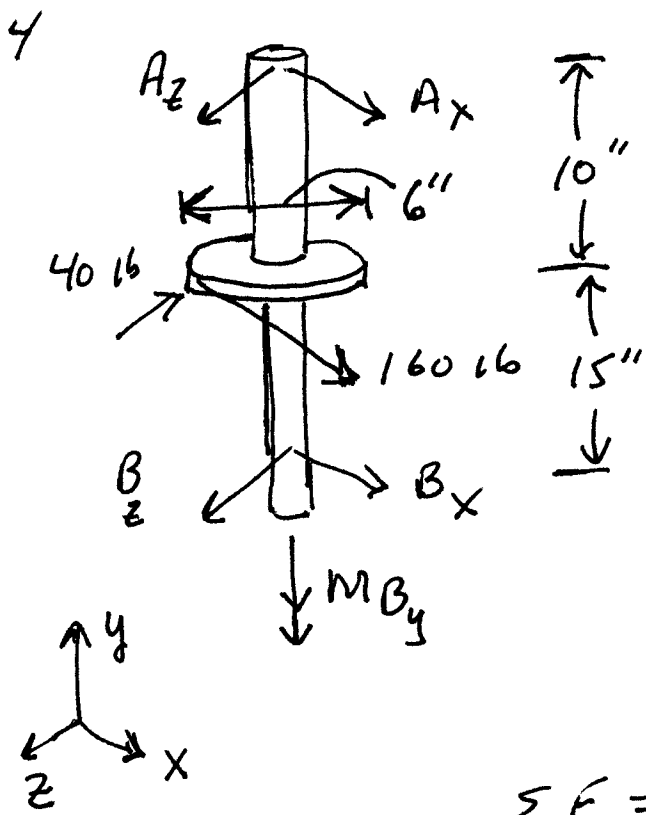
$$\Rightarrow M_{Ay} = -75(.3) = -22.5 \text{ N-m}$$

$$\sum M|_{B_z} = 75(.03) - 100(.05) + B_y(.05) = 0$$

$$B_y = 55 \text{ N}$$

$$C_y = 100 - B_y = 45 \text{ N}$$





$$\sum M_{A_x} = 40(10) - B_z(25) = 0$$

$$B_z = 16 \text{ lb}$$

$$\sum M_{A_y} = 160(3) - M_{B_y} = 0$$

$$M_{B_y} = 480 \text{ lb-in}$$

$$\sum M_{A_z} = 160(10) + B_x(25) = 0$$

$$B_x = -64 \text{ lb}$$

$$\sum F_x = A_x + 160 + B_x = 0$$

$$A_x = -160 - B_x = -160 - (-64) = -96 \text{ lb}$$

$$\sum F_y = 0 \checkmark$$

$$\sum F_z = A_z - 40 + B_z = 0 \Rightarrow A_z = 40 - B_z = 24 \text{ lb}$$

