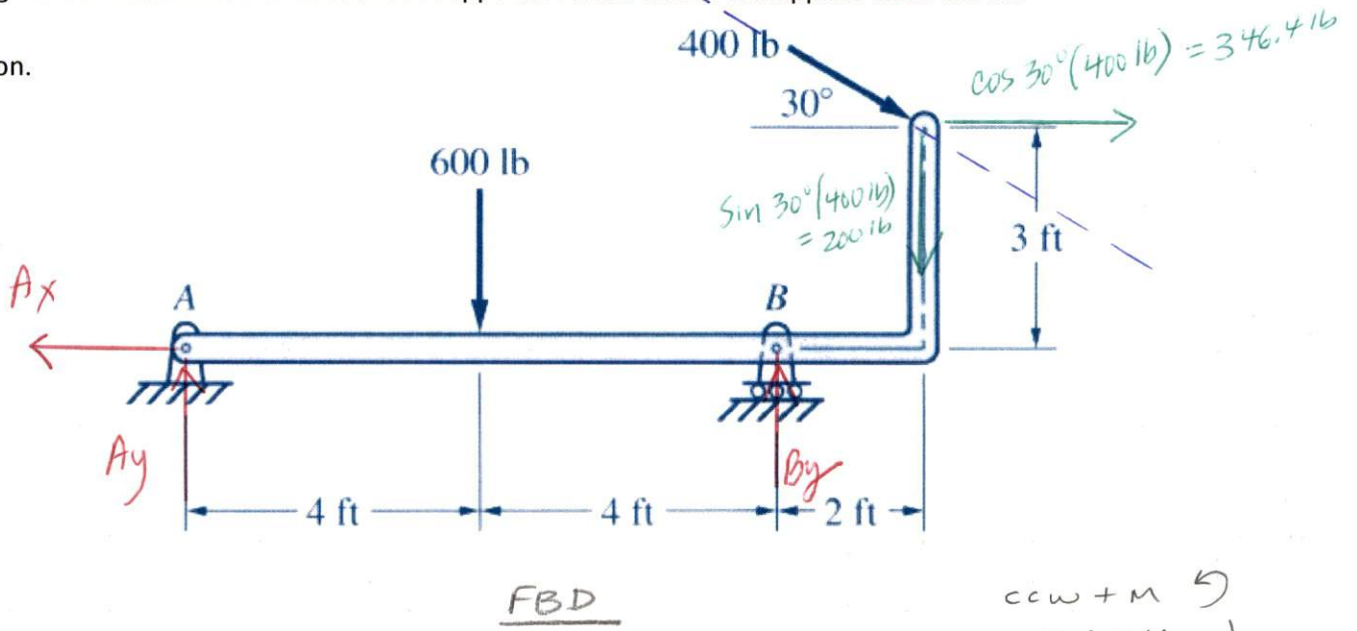


3-56

See Fig. P3-56. Determine the reactions at supports A and B due to the applied loads shown.

Solution.



Equilibrium Equations

$$[\Sigma F_x = 0] \quad -A_x + 346.4 \text{ lb} = 0$$
$$A_x = \underline{\underline{346.4 \text{ lb}}} \leftarrow$$

$$[\Sigma M_A = 0] \quad -600 \text{ lb}(4 \text{ ft}) + B_y(8 \text{ ft}) - 200 \text{ lb}(10 \text{ ft}) = 0$$
$$B_y = \frac{4400 \text{ lb} \cdot \text{ft}}{8 \text{ ft}} = \underline{\underline{550 \text{ lb}}} \uparrow$$

$$[\Sigma F_y = 0] \quad A_y - 600 \text{ lb} + B_y - 200 \text{ lb} = 0$$
$$A_y = 800 \text{ lb} - 550 \text{ lb} = \underline{\underline{250 \text{ lb}}} \uparrow$$