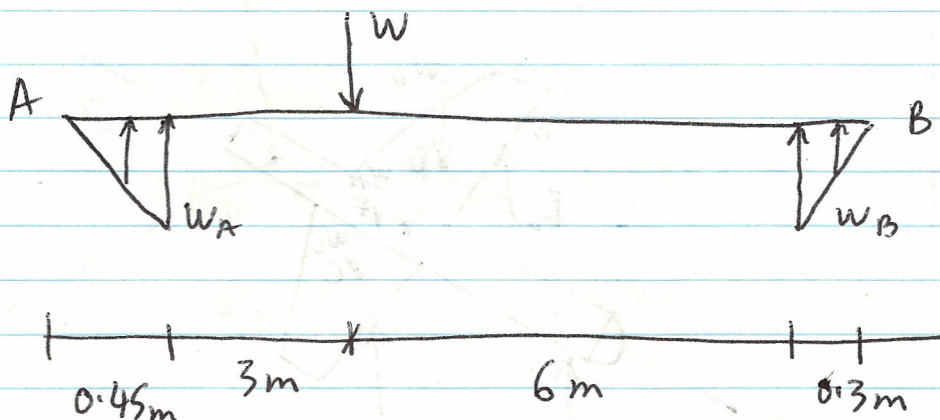


5-37



Free body diagram

$$\sum M_B \text{ (or } \sum M_A) = 0$$

$$\frac{1}{2}(0.45)W_A \cdot \left(\frac{0.45}{3} + 3 + 6 + 0.3\right) - 50(9.81)(6.3) + \frac{1}{2}(0.3)W_B \cdot \left(\frac{0.3}{3} \cdot 0.3\right) = 0$$

$$2.126W_A + 0.03W_B = 0 \quad \text{--- (1)}$$

$$\sum F_y = 0$$

$$\frac{1}{2}(0.45)W_A + \frac{1}{2}(0.3)W_B = 50(9.81)$$

$$0.225W_A + 0.15W_B = 490.5 \quad \text{--- (2)}$$

solve system of equations.